

Service Manual

CB TRANSCEIVER

Model GRANT

UT - 543A

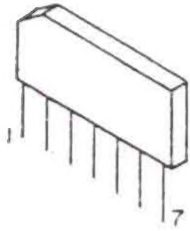
www.cbradio.nl

thanks Homer

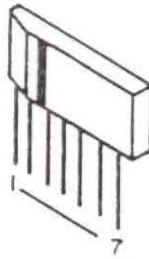
for sharing this file

uniden®
CORPORATION

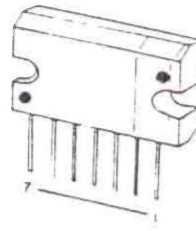
μPC1028H



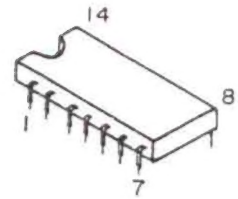
AN612



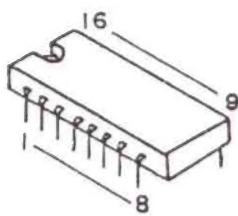
μPC1182H



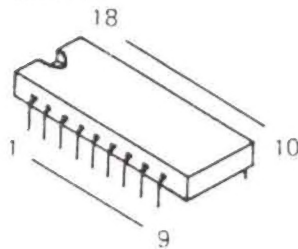
TA75902P
SO42P



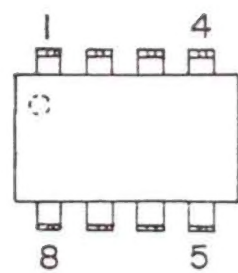
TC4008BP



MB8719



NJM4558D



TRANSISTORS

2SA733
2SC945
2SC1674
2SC1675
2SC1730
2SC1973



2SB525



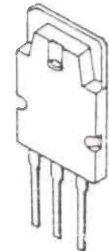
2SA473
2SC2312
2SC2166



2SD471

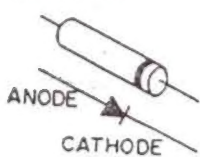


2SB754

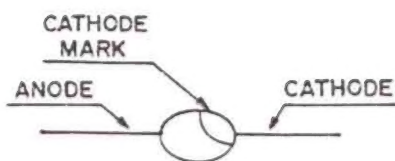


DIODES

1N60
1S2075
MC301
1N4003
1S2688
1S2339
RD7.5EB2
RD5.1EB2



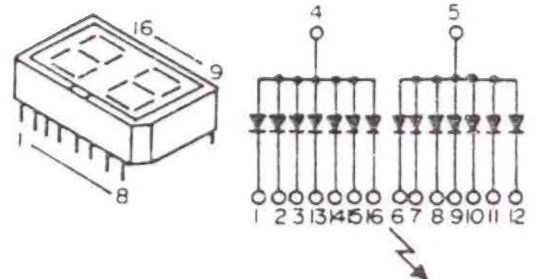
KB262
KB362



TLR124
TLG124G



UR202



	F(RF)	F (LOCAL)
1	26.965	16.27
2	26.975	16.28
3	26.985	16.29
4	27.005	16.31
5	27.015	16.32
6	27.025	16.33
7	27.035	16.34
8	27.055	16.36
9	27.065	16.37
10	27.075	16.38
11	27.085	16.39
12	27.105	16.41
13	27.115	16.42
14	27.125	16.43
15	27.135	16.44
16	27.155	16.46
17	27.165	16.47
18	27.175	16.48
19	27.185	16.49
20	27.205	16.51
21	27.215	16.52
22	27.225	16.53
23	27.255	16.56
24	27.235	16.54
25	27.245	16.55
26	27.265	16.57
27	27.275	16.58
28	27.285	16.59
29	27.295	16.60
30	27.305	16.61
31	27.315	16.62
32	27.325	16.63
33	27.335	16.64
34	27.345	16.65
35	27.355	16.66
36	27.365	16.67
37	27.375	16.68
38	27.385	16.69
39	27.395	16.70
40	27.405	16.71

F local : +2.5 KHz (BLS)
-2.5 KHz (BLT)

Fréquence du quartz :
15.4525 MHz (BLS)

ALIGNMENT OF RECEIVER

1. TEST EQUIPMENT REQUIRED

- A. RF signal generator
- B. DC power supply (13.8V)
- C. AF VTVM
- D. 8 Ohm load
- E. oscilloscope AF
- F. oscilloscope (0-50 Mhz)

2. ALIGNMENT PROCEDURE

STEP	PRESET TO	ADJUSTMENT	REMARKS
1	MODE : RX, AM MID : 19CH AF VR : CW MAX. SQ VR : CCW MAX. RF GAIN : CW MAX. CLARIFIER : CENTER MOD, S/RF : S/RF NB/ANL, OFF : OFF	L8	ADJUST THE SG ON 27,185 Mhz, WITH 1KHz, 30% MODULATION ADJUST L8
2	SAME AS STEP 1	L7, 9, 11, 12 13, 52, 3, 4 5	ADJUST LEVEL OF SG TO OBTAIN 2V ON AF VTVM THE ADJUSTED COILS FOR MAX. READING ON AF VTVM
3	SAME AS STEP 1	L8	ADJUST TO OBTAIN MIN. DIFF. BETWEEN CH40 AND CH1
4	SAME AS STEP 1	VR1	SET THE LEVEL OF SG TO 100 MV ADJUST VR1 FOR "5-9" READING ON TRANSC. METER
5	SAME AS STEP 1	VR4	SET SQ.VR ON MAX. ADJUST LEVEL OF SG TO 1000 HV; ADJUST VR4 SO THAT THE RADIO SIGNAL WILL APPEAR ON OSCILLATOR; SET SQ VR ON MIN.
6	SAME AS STEP 1 MODE : USB	L14, 15	SET RF GEN ON 27,186 MHz - ADJUST THE COIL TO OBTAIN MAX. DEVIATION ON AF VTVM
7	SAME AS STEP 1	VR2	SET LEVEL OF SG ON 100 μ V ADJUST VR2 TO OBTAIN "S9" ON TR. METER
8	SAME AS STEP 1 SQ VR : CW MAX.	VR3	SET LEVEL OF SG TO 1000 μ V ADJUST VR3 SO THAT THE AUDIO SIGNAL WILL APPEAR ON OSCIL.
9	SAME AS STEP 1 NB/ANL, OFF: ON MID, 16CH, USB	L1, 2	SET SG ON 27,185 MHz, 0% MOD., 10 μ V LEVEL; CONNECT OSCIL. ON D2 AND ADJUST THE COILS TO OBTAIN MAX. DEVIATION
10	SAME AS STEP 1 MODE : FM	L6	SET SG ON 27,185 MHz WITH 1 KHz DEVIATION; LEVEL ON 1000 μ V ADJUST LG TO OBTAIN MAX.

ALIGNMENT OF PLL AND CARRIER OSCILLATOR

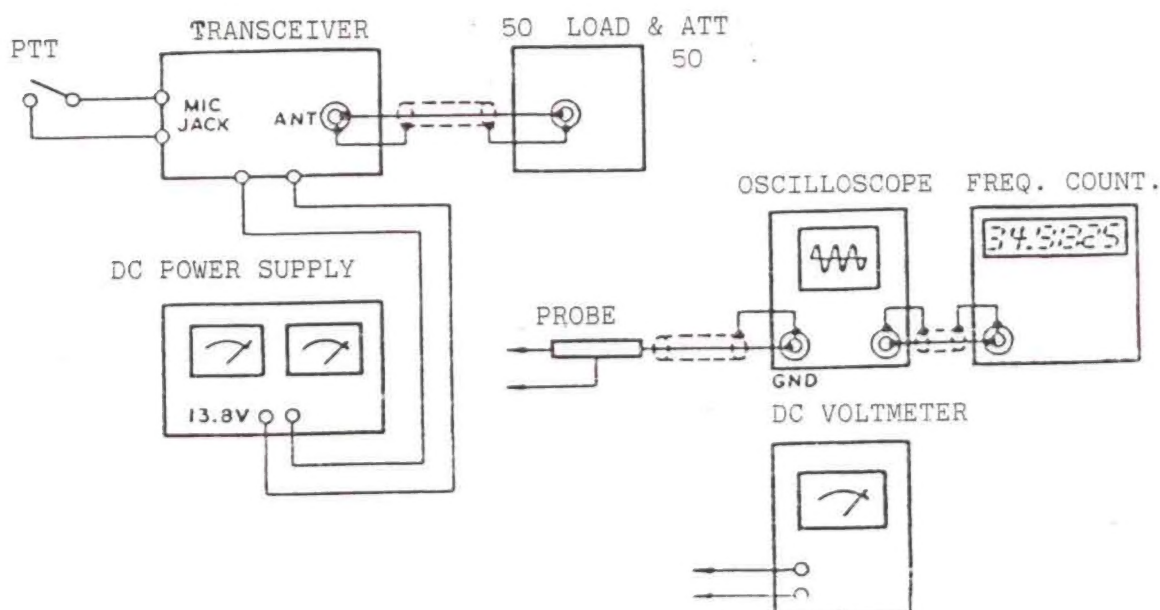
1. TEST EQUIPMENT REQUIRED

- A. oscilloscope (50 MHz)
 B. frequency counter
 C. DC power supply (19,8 V)
 D. 50 Ohm load
 E. DC Volt meter

2. ALIGNMENT PROCEDURE

STEP	PRESET TO	ADJUSTMENT	REMARKS
1	MODE : RX, AM MID 19CH	OSCILLOSCOPE ON TP.4	ADJUST TO L17 TO OBTAIN MAX. READING
2	MODE : RX, AM MID 40CH	DC VOLT METER ON TP.2	ADJUST TO L18 TO OBTAIN 5,5 V
3	MODE : RX, AM MID 19CH	OSCILLOSCOPE ON TP.3	ADJUST TO L19 TO OBTAIN MAX. READING
4	MODE : RX, AM MID 19CH	FREQUENCY CNT ON TP.3	ADJUST TO L25 TO OBTAIN 16,490 MHz
5	MODE : RX, USB MID 19CH	FREQUENCY CNT ON TP.3	ADJUST TO L26 TO OBTAIN 16,4925 MHz
6	MODE : RX, LSB MID 19CH	FREQUENCY CNT ON TP.3	ADJUST TO L27 TO OBTAIN 16,4875 MHz
7	MODE : TX, LSB MID 19CH	FREQUENCY CNT ON TP.3	ADJUST TO VR6 TO OBTAIN 16,875 MHz
8	MODE : RX, AM MID 19CH	FREQUENCY CNT ON TP.3	ADJUST TO L22 TO OBTAIN 16,040 MHz
9	MODE : RX, USB MID 19CH	FREQUENCY CNT ON TP.3	ADJUST TO L23 TO OBTAIN 16,0425 MHz
10	MODE : RX, LSB MID 19CH	FREQUENCY CNT ON TP.3	ADJUST TO L24 TO OBTAIN 16,0375 MHz
11	MODE : RX, LSB	FREQUENCY CNT ON TP.6	ADJUST TO L30 TO OBTAIN 16,6975 MHz
12	MODE : RX, USB	FREQUENCY CNT ON TP.6	ADJUST TO L29 TO OBTAIN 10,6925 MHz
13	MODE : TX, AM	FREQUENCY CNT ON B FROM TR43	ADJUST TO L28 TO OBTAIN 10,6950 MHz

TEST EQUIPMENT CONNECTION



ALIGNMENT OF TRANSMITTERS

1. TEST EQUIPMENT REQUIRED

A. 2 AF generator
B. RF power meter
C. DC power supply
D. DC current meter
E. AF VTVM

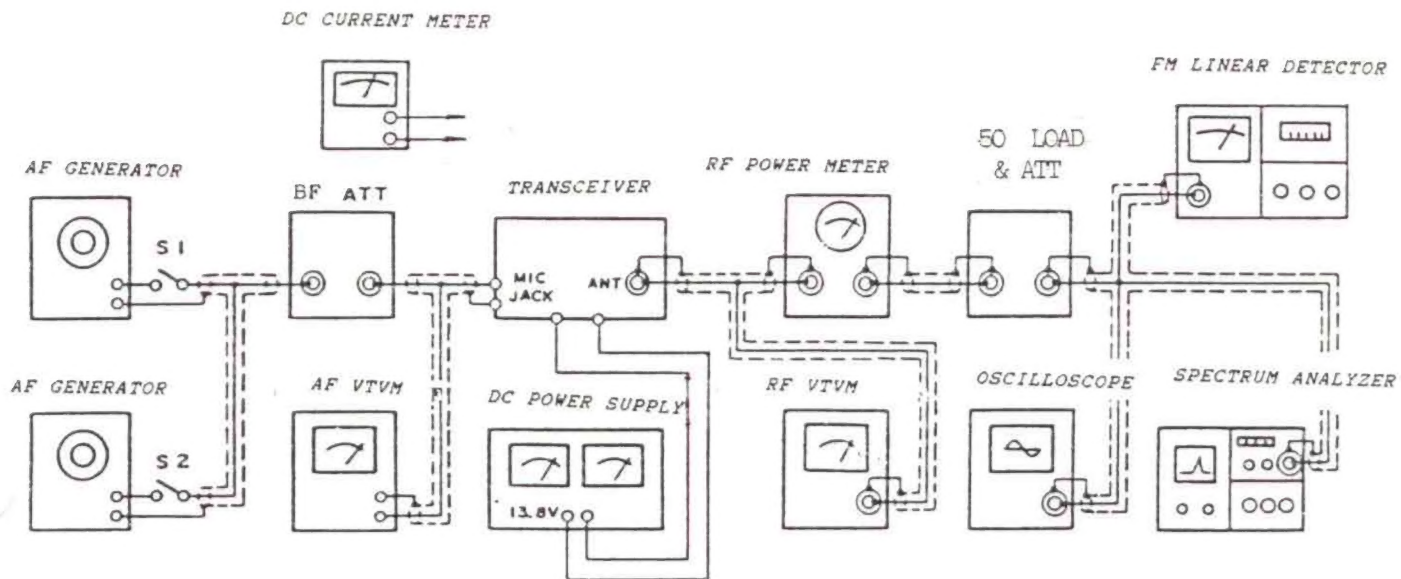
F. frequency counter
G. 500 Ohm load
H. RF VTVM
I. oscilloscope
J. spectrum analyzer

2. ALIGNMENT PROCEDURE

STEP	PRESET TO	ADJUSTMENT	REMARKS
1	MODE : TX, USB S1, 2 : OFF	VR11	DISCONNECT PC 834AA, CONNECT DC CURRENT METER ON TP9 (+); TP8(-). ADJUST FOR 50 mA ON DC CURRENT METER
2	SAME AS STEP 1	VR9	CONNECT DC CURRENT METER ON TP9(+); TP8(-); ADJUST VR 10 MIN, THEN ADJUST VR9 TO OBTAIN 4 mA, ADJUST VR10 TO OBTAIN 80 mA ON DC CURRENT METER
3	SAME AS STEP 1		
AFTER STEP 1, 2, 3 RESTORE CIRCUIT PC834AA			
4	MODE : TX, USB S1, 2 : ON (2,4 KHz & 0,5 KHz)	L46	SET THE CORE OF L4G TO THE BOTTOM, ADJUST VR12 TO THE MIN.
5	SAME AS STEP 4	L45, L48 L49	ADJUST THE CORES TO OBTAIN MAX. DEVIATION ON THE RF VTVM; REPEAT THIS OPERATION WITH LOWER AF LEVELS ON MIC CIRCUIT
6	SAME AS STEP 4	L46	ADJUST TO OBTAIN MAX DEVIATION ON RF VTVM; ADJUST TO OBTAIN A MIN. POWER DIFF. BETWEEN CH40 HI AND 1 LOW
7	MODE : TX, AM S1 : ON (1 KHz) MID : 19CH	L37	ADJUST TO OBTAIN MAX. DEVIATION ON S/RF VTVM
8	SAMES AS STEP 4	VR12	ADJUST TO OBTAIN 32,4 V ON RF VTVM
9	SAME AS STEP 1	VR7	ADJUST TO OBTAIN THE MIN. DIFF. BETWEEN USB AND LSB WITH THE SPEC. ANALY.
10	MODE : TX, AM S1, 2 : OFF	VR13	ADJUST TO OBTAIN 10W (4W) ON RF POWER METER
11	SAME AS STEP 10	VR8	SET SWITCH ON S/RF ADJUST VR8 TO SET S-METER BETWEEN THE RED AND GREEN FIELD
12	MODE : TX, AM S1 : ON	VR14	SET THE AF GEN ON 1 KHz, 30 mV ADJUST VR14 TO OBTAIN 90% MODULATION ON THE OSCILLOSCOPE
13	MODE : TX, FM S1 : ON	VR5	SET THE AF GEN. ON 1 KHz, 30 mV ADJUST VR5 TO OBTAIN +/- 2 kHz DEVIATION ON THE S-METER
14	MODE : TX, AM S1 : ON	VR15	SET SWITCH ON MOD, SET GEN. TO OBTAIN 50% MOD. ON THE OSCILL. ADJUST LEVEL OF AF GEN. TO 16 DB; ADJUST VR15 TO OBTAIN 100% MOD. ON S- METER

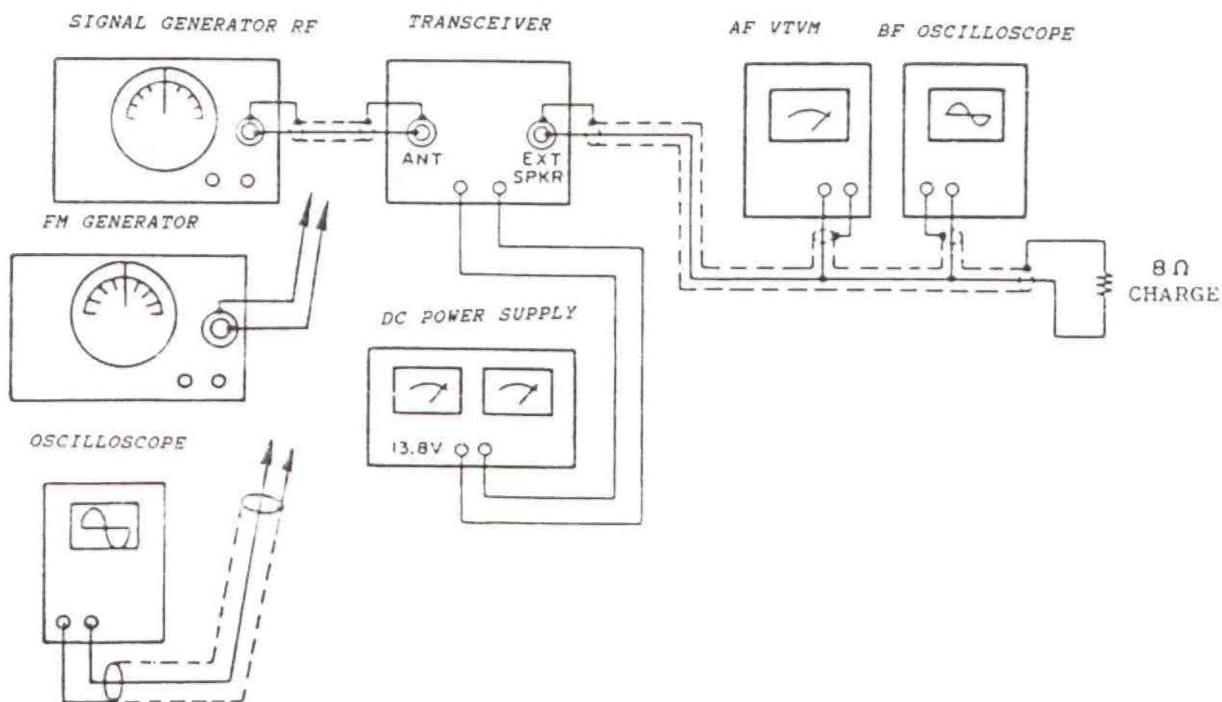
TEST EQUIPMENT CONNECTION

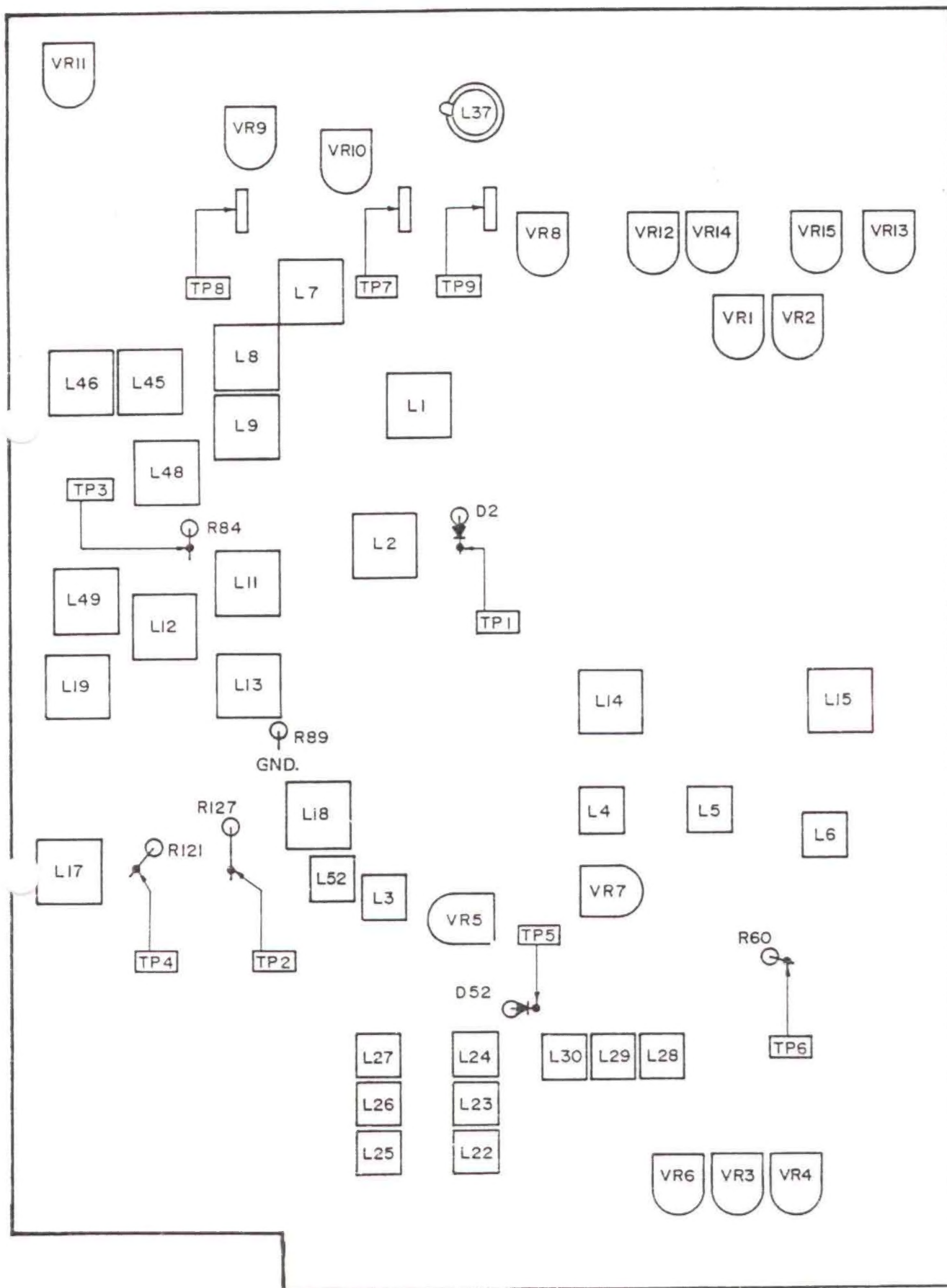
ALIGNMENT OF TRANSMITTER



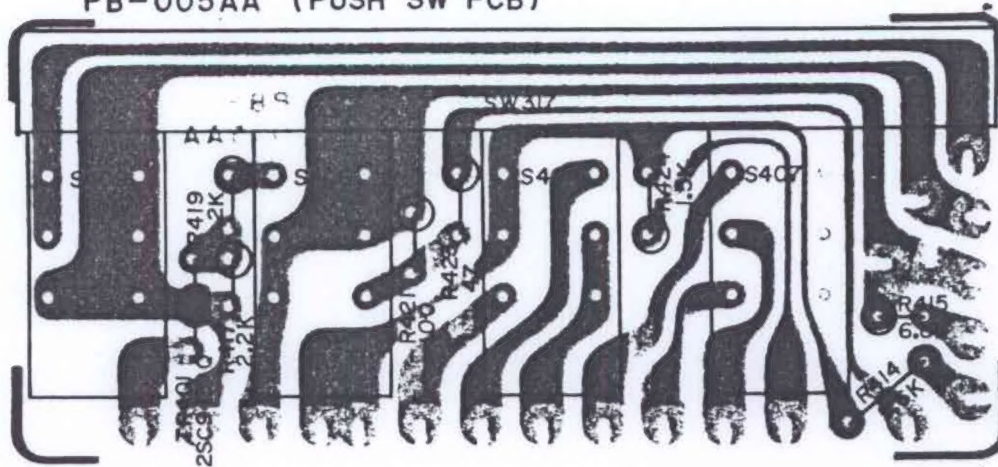
TEST EQUIPMENT CONNECTION

ALIGNMENT OF RECEIVER

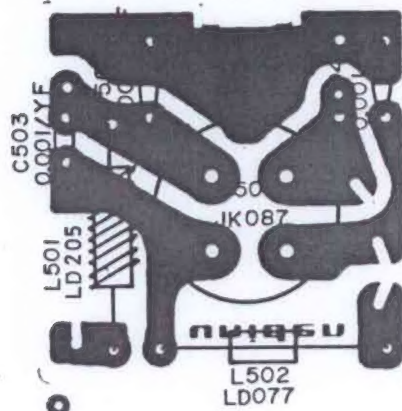




PB-005AA (PUSH SW PCB)



●PC-266AA (MIC JACK PCB)

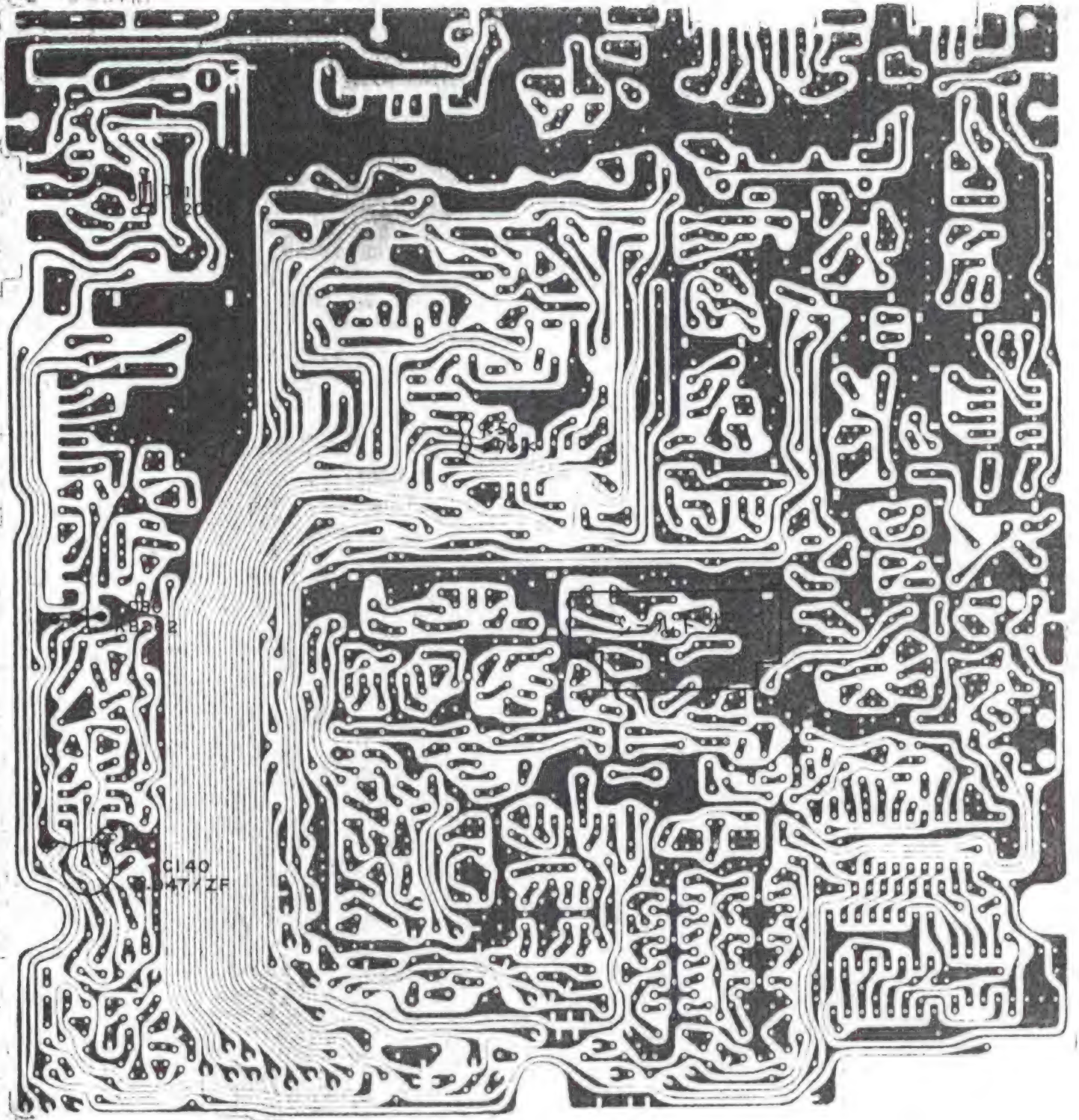


注) 指示用抵抗は、1/8Wである

UT-543B

9

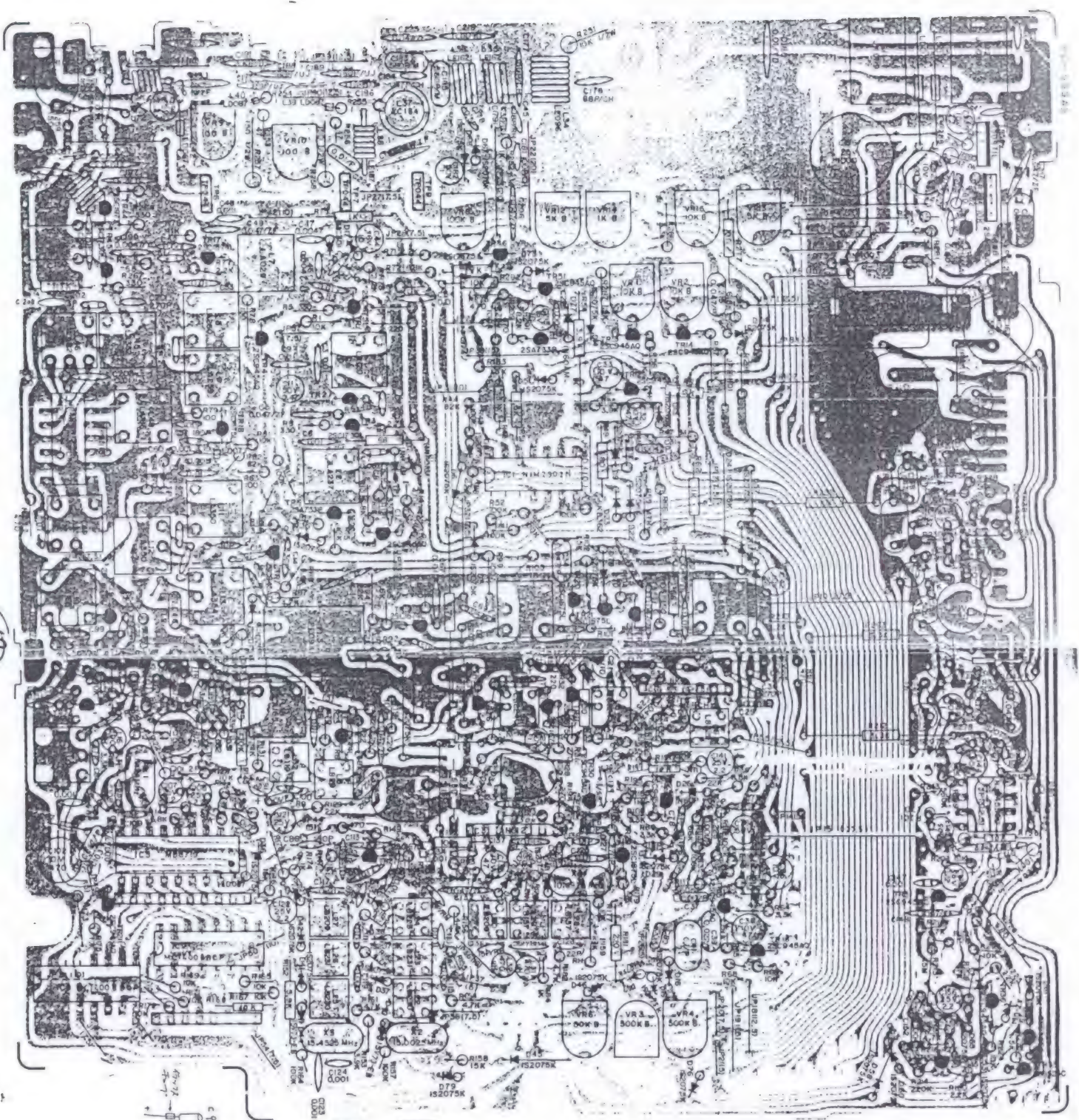
機 種 名	UT-543A		
図 名	部品取付図		
図 番	E23-3745		
承認	検 図	組 装	作 成
	石 橋	天 野	3.55.12.18
	室 下	天 野	7.10



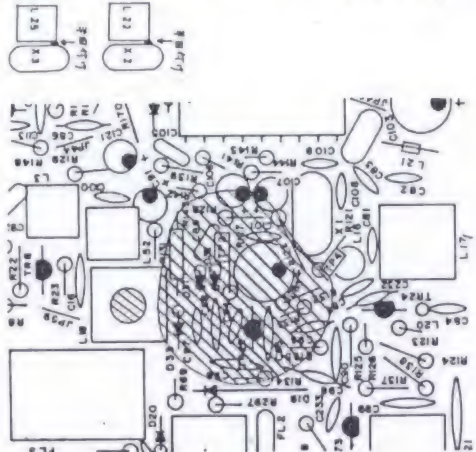
UT-543B

機種名	UT-543A
図名	裏部品取付図
図番	E24-3746
承認	設計
検出	556.2.3
組立	124
作成	

(A)



(12)

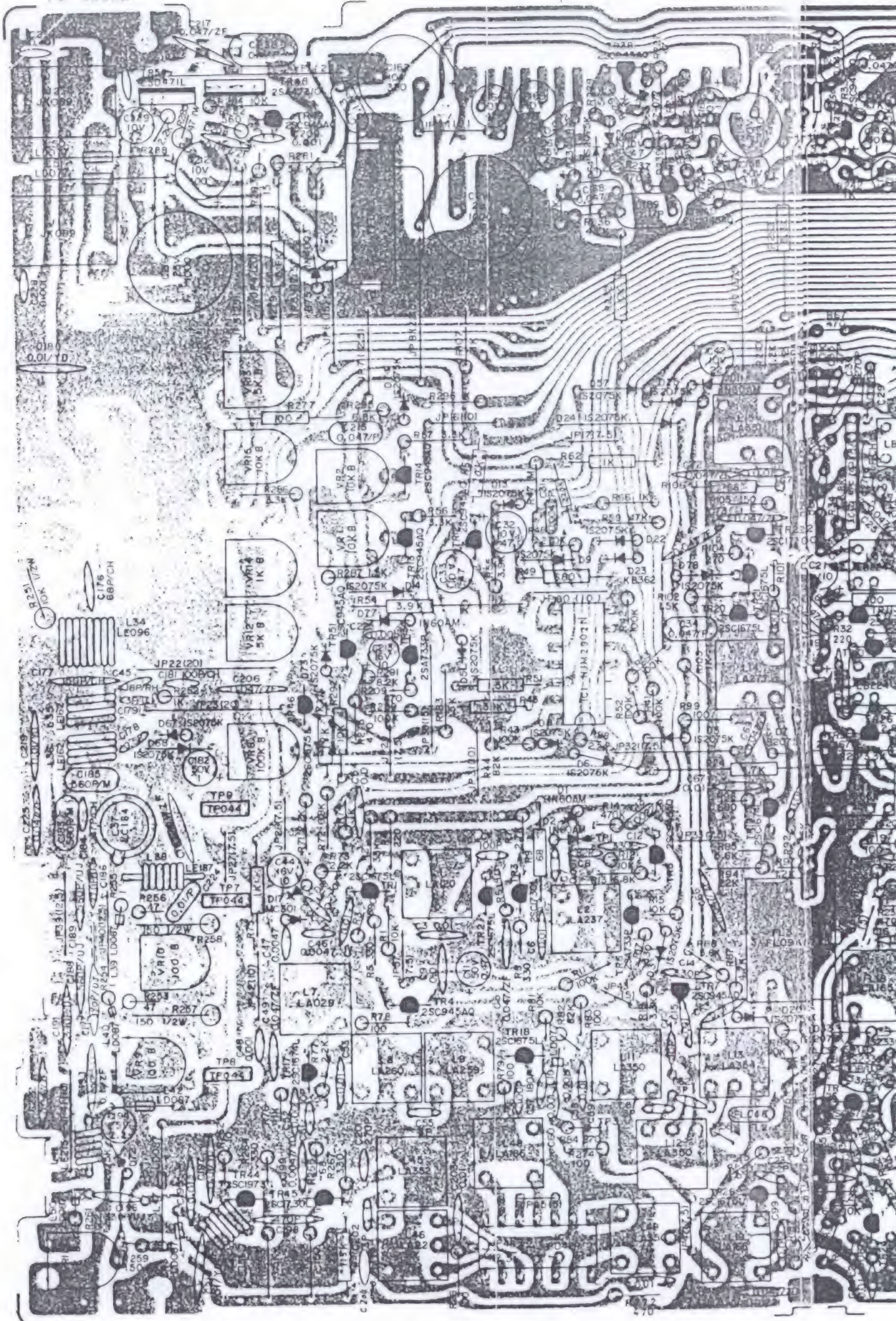


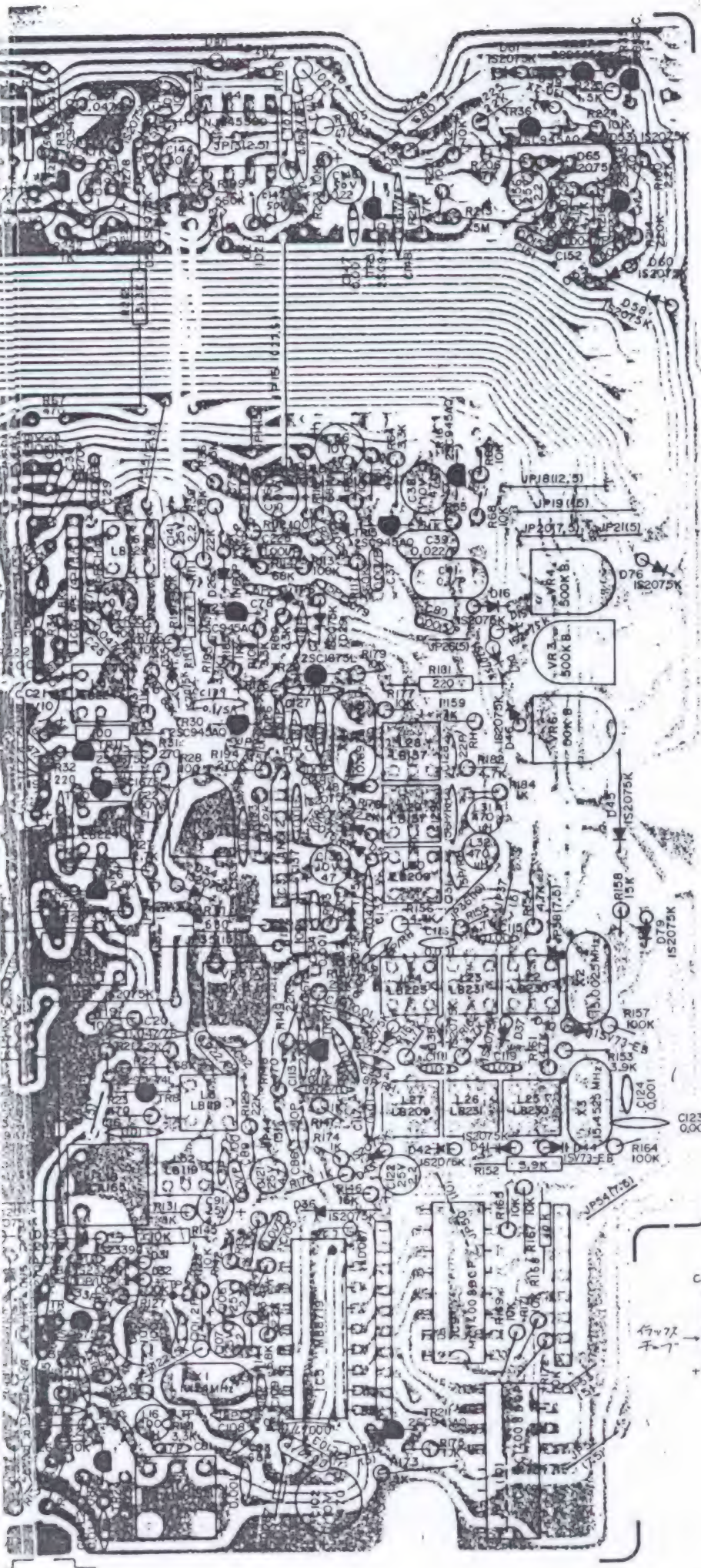
針線部、P.C.B.に印する事

- NOTES:
1. RESISTANCE VALUES ARE SHOWN IN OHMS UNLESS OTHERWISE NOTED. IN-FIELD OHM. W. MEG OHM
 2. RESISTOR NOTATIONS ARE 1/8W UNLESS OTHERWISE NOTED.
 3. CAPACITANCE VALUES ARE INDICATED IN MICROFARADS UNLESS OTHERWISE NOTED. IF MICRO-MICROFARADS ALL CAPACITORS, FILM OR POLYESTER (VARIABLE FILM) 1000PF UNLESS OTHERWISE NOTED.

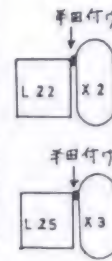
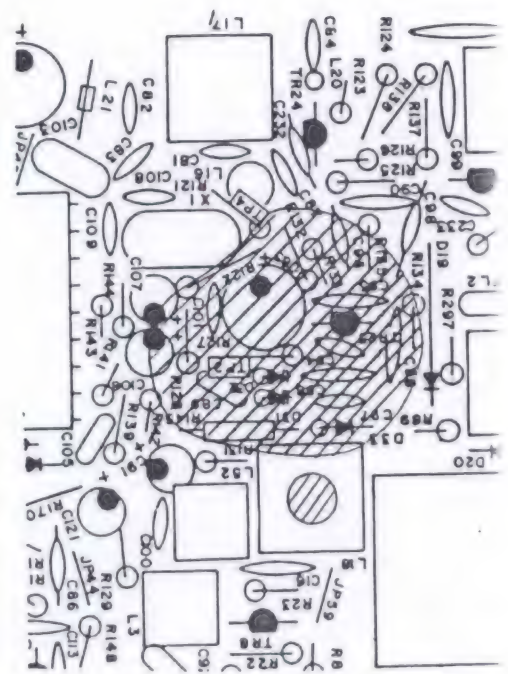
(B)

機種名	UT-543/
名	MAIN PCB (REV. 1)
図番	E22-3744
作図	W. B.
検出	W. B.
承認	W. B.
日付	7.7.74





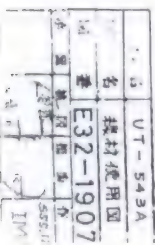
斜線部パラフィンロットする事



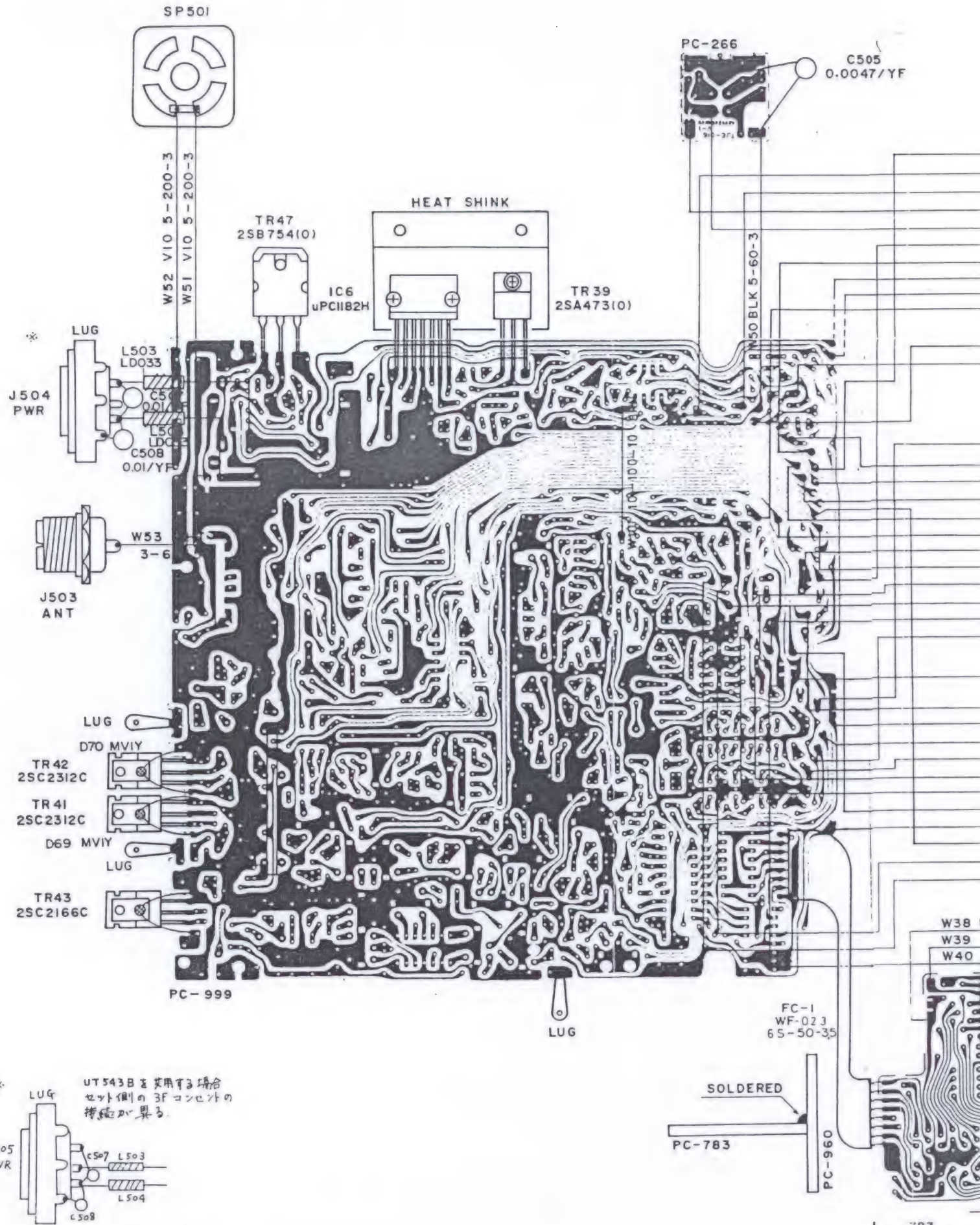
- NOTES:
1. RESISTANCE VALUES ARE SHOWN IN OHMS UNLESS OTHERWISE NOTED. (K=KILO OHM, M= MEG OHM)
 2. RESISTOR WATTAGES ARE 1/8W UNLESS OTHERWISE NOTED.
 3. CAPACITANCE VALUES ARE INDICATED IN MICROFARADS UNLESS OTHERWISE NOTED. (P= MICRO-MICROFARAD)
 4. ALL CAPACITORS TEMPERATURE CHARACTERISTICS ARE SL (LESS THAN 100PPF) OR YF (MORE THAN 100PPF) UNLESS OTHERWISE NOTED.

機 種 名	UT-543 /
図 名	MAIN PCB部品配付図
図 番	E22-3744
本 図	1/1
製 図 者	3.55/2.16
検 査 者	7+D

12 B

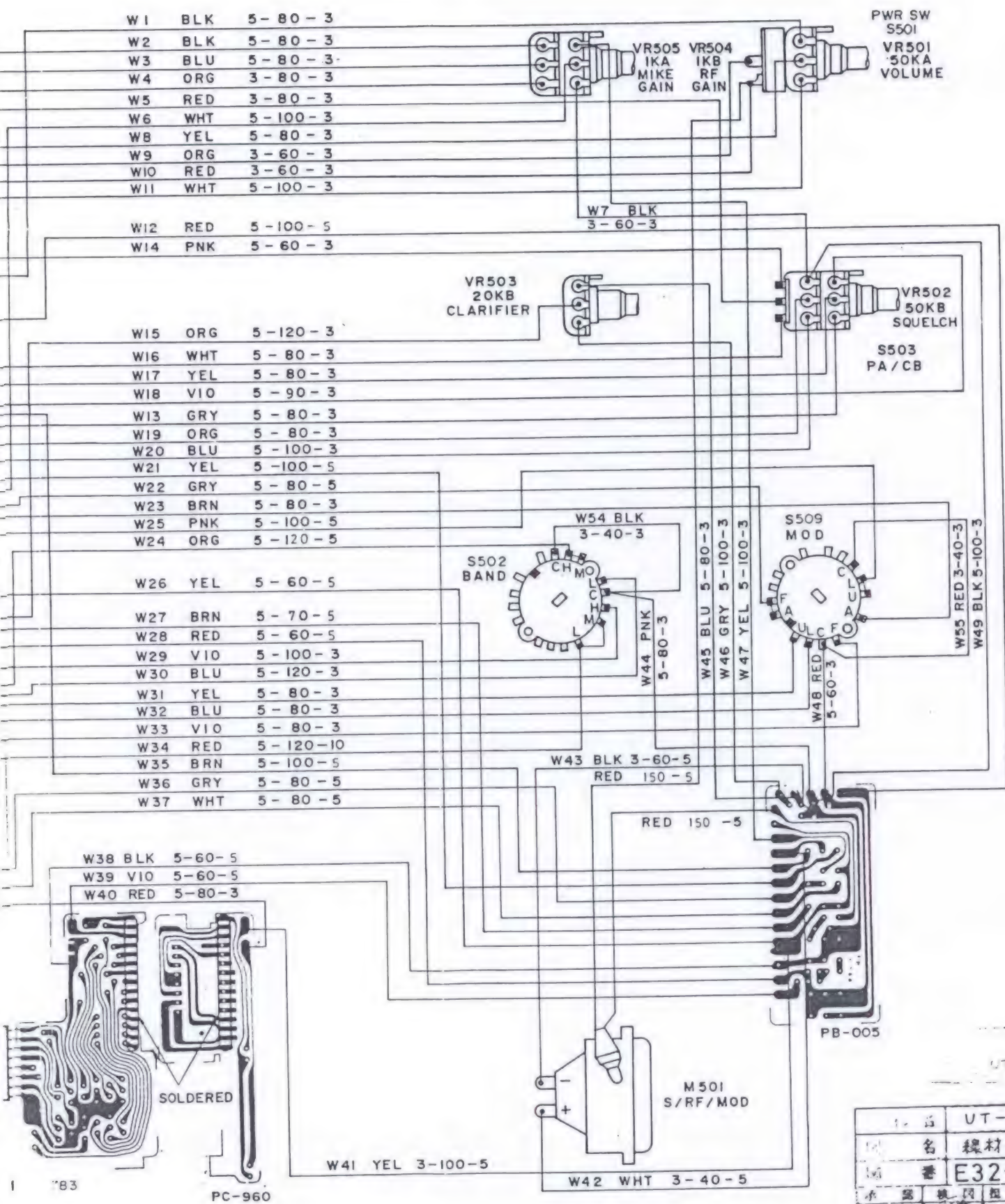


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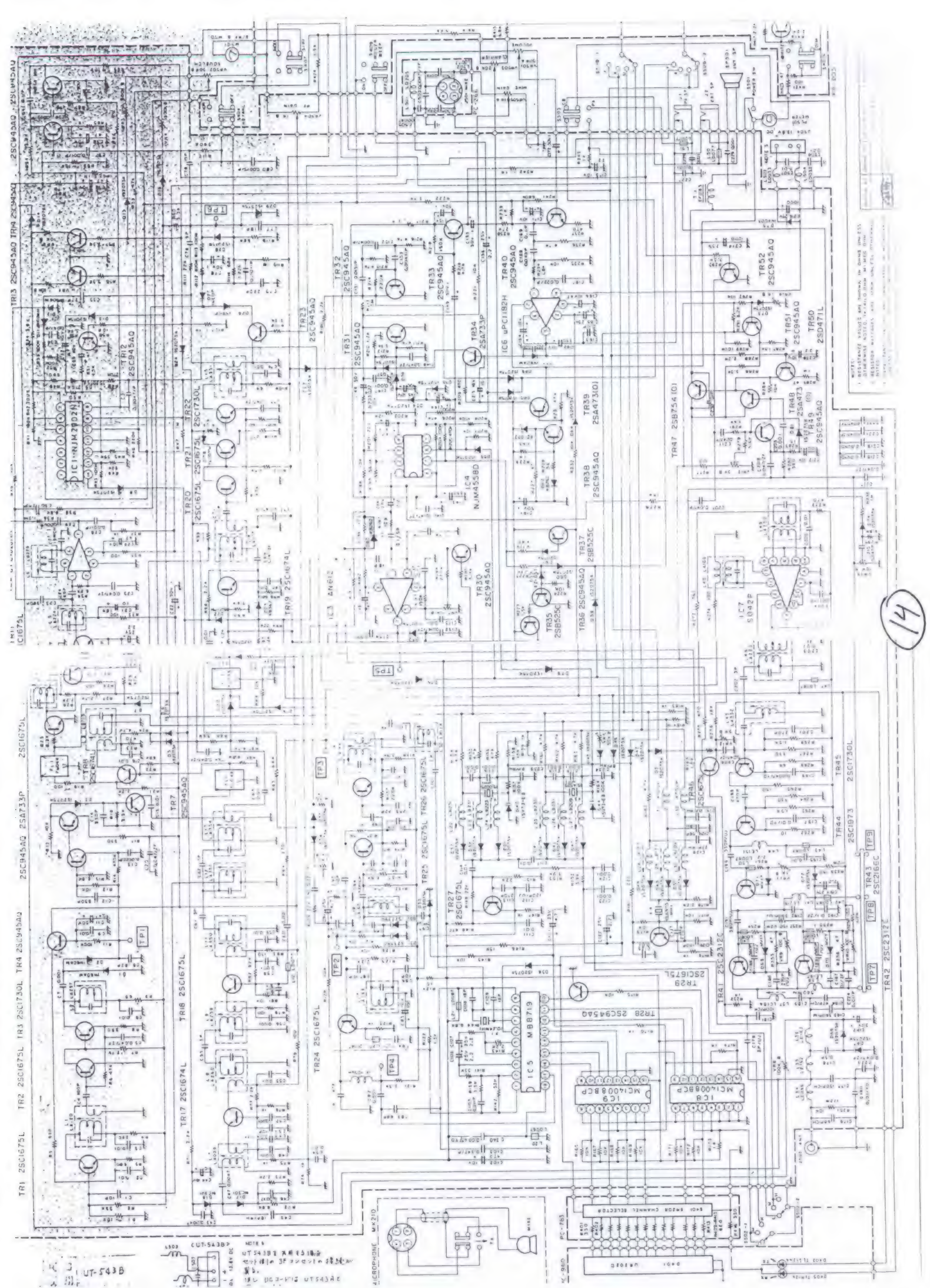
13A

5
/YF



138

品名	UT-543A
材料使用	線材使用
番	E32-190
承認	検査
作成	555
IN	



TR1 2SC1675L

TR2 2SC1675L TR3 2SC1730L TR4 2SC945A0

TR5 2SC945A0 TR6 2SA733P

TR7 2SC1675L

UT-543B

UT-543B 無線電機
電圧 13.8V DC
電流 35mA
電圧 13.8V DC
電流 35mA

CROPHONE MK210

PC-783

UR202D

3401 SR208 CHANNEL SELECTOR

D401 330

R402 10K

R403 10K

R404 10K

R405 10K

R406 10K

R407 10K

R408 10K

R409 10K

R410 10K

R411 10K

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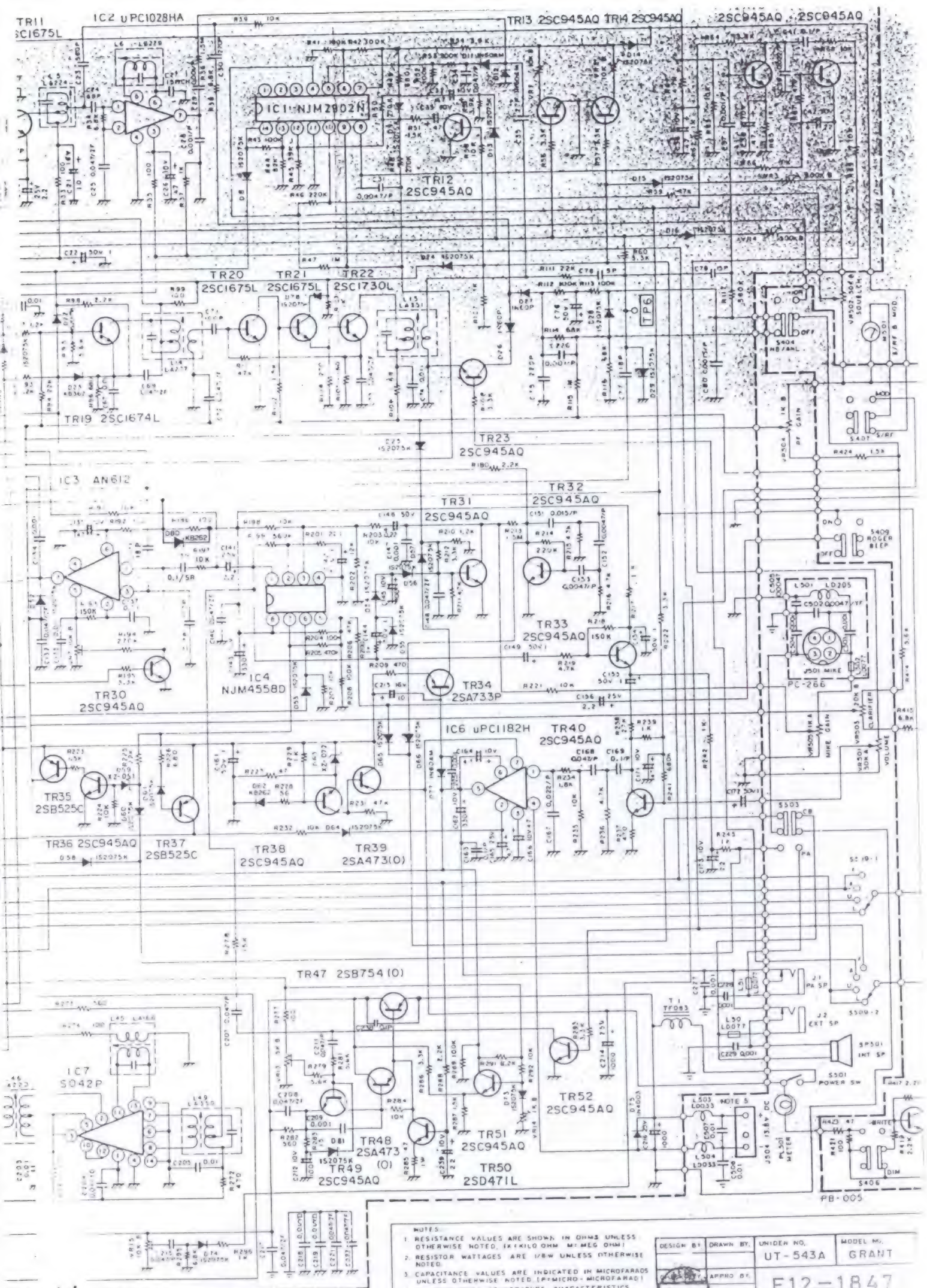
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R724 10K</



A UL -C E SAA-C I VDE-C
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 C CSA-C G BS -C
 D CSA H BS

DATE 86 12 10
 PAGE 001
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-C CERTIFICATION CARD

BILL OF MATERIAL

REVISION NOTE NO

CUSTOMER MODEL

MFR'S MODEL CODE
 UT543AN

LEVEL	QTY	DESCRIPTION	REF. NO.	QTY	REMARKS
1	1	UT-543A(N)(E)	10-00000		
2	1	UT-543A(N) MAIN PCB ASS'Y			
3	1	CAPACITOR: CERAMIC	C181		T
3	1	CAPACITOR: CERAMIC	C027		T
3	1	CAPACITOR: CERAMIC	C177		T
3	1	CAPACITOR: CERAMIC	C094		T
3	1	CAPACITOR: CERAMIC	C184		T
3	1	CAPACITOR: CERAMIC	C176		T
3	6	CAPACITOR: CERAMIC	C001 C051 C086 C087 C093 C098		T
3	3	CAPACITOR: CERAMIC	C004 C071 C138		T
3	1	CAPACITOR: CERAMIC	C079		T
3	1	CAPACITOR: CERAMIC	C126		T
3	4	CAPACITOR: CERAMIC	C077 C108 C109 C136		T
3	1	CAPACITOR: CERAMIC	C057		T
3	1	CAPACITOR: CERAMIC	C101		T
3	1	CAPACITOR: CERAMIC	C233		T
3	1	CAPACITOR: CERAMIC	C075		T
3	1	CAPACITOR: CERAMIC	C035		T
3	5	CAPACITOR: CERAMIC	C030 C036 C113 C127 C201		T
3	5	CAPACITOR: CERAMIC	C055 C061 C062 C100 C292		T
3	2	CAPACITOR: CERAMIC	C012 C014		T
3	1	CAPACITOR: CERAMIC	C095		T
3	1	CAPACITOR: CERAMIC	C081		T
3	1	CAPACITOR: CERAMIC	C193		T
3	1	CAPACITOR: CERAMIC	C173		T

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A DL - G E SAA - C J VDE - C
 B UL - F SAA - J VDE
 C CSA - G BS - C
 D CSA - H BS

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MFR'S MODEL CODE
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-C: CERTIFICATION CARD

LEVEL	QTY	SET	REF NO	DESCRIPTION	DELIVERY	HT86-014
3	1		C078	CAPACITOR: CERAMIC 815072Z 5PF 50V D SL		T
3	1		C023	CAPACITOR: CERAMIC 815615Z 560PF 50V K SL		T
3	2		C024 C023	CAPACITOR: CERAMIC 816805Z 68PF 50V K SL		T
3	1		C008	CAPACITOR: CERAMIC 818205Z 82PF 50V K SL		T
3	1		C131	CAPACITOR: CERAMIC 811505Z 15PF 50V K RH		T
3	1		C045	CAPACITOR: CERAMIC 811805Z 18PF 50V K RH		T
3	1		C128	CAPACITOR: CERAMIC 812205Z 22PF 50V K RH		T
3	1		C129	CAPACITOR: CERAMIC 815605Z 56PF 50V K RH		T
3	2		C234 C235	CAPACITOR: CERAMIC 818092Z 8PF 50V D RH		T
3	1		C028	CAPACITOR: CERAMIC 811015Z 100PF 50V K UJ		T
3	1		C112	CAPACITOR: CERAMIC 811215Z 120PF 50V K UJ		T
3	1		C186	CAPACITOR: CERAMIC 812715Z 270PF 50V K UJ		T
3	1		C179	CAPACITOR: CERAMIC 813091Z 3PF 50V C UJ		T
3	1		C196	CAPACITOR: CERAMIC 813315Z 330PF 50V K UJ		T
3	2		C191 C192	CAPACITOR: CERAMIC 813915Z 390PF 50V K UJ		T
3	1		C097	CAPACITOR: CERAMIC 815092Z 5PF 50V D UJ		T
3	2		C128 C189	CAPACITOR: CERAMIC 815615Z 560PF 50V K UJ		T
3	2		C183 C185	CAPACITOR: SILVERED MICA 815616Z 560PF 50V M		J
3	1		C146	CAPACITOR: ELECTROLYTIC 812286Z 0.22UF 50V M C-061		N
3	1		C025 C145 C212	CAPACITOR: ELECTROLYTIC 111010Z 100UF 10V		T
3	3		C042 C173 C239	CAPACITOR: ELECTROLYTIC 112202Z 22UF 10V		T
3	2		C143 C162	CAPACITOR: ELECTROLYTIC 113310Z 330UF 10V		T
3			C026 C032 C073	CAPACITOR: ELECTROLYTIC		
3			C036 C038 C125			
3			C164 C166 C171			
3	1		C102	CAPACITOR: ELECTROLYTIC 117102Z 470UF 10V		T

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AUL -C E SAA-C I VDE G
B UL F SAA J VDE
C CCA-C 3 BS -C
D CSA H BS
-C CERTIFICATION CARD

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CUSTOMER MODEL

MFR S MODEL CODE
UT5432N

LEVEL	QTY	PART CODE	DESCRIPTION	REF NO	QTY	UNIT	REMARKS
3		BCEL	CAPACITOR:ELECTROLYTIC				
	3	311000Z	10UF 16V	C021 C044 C213	3		T
3		BCEL	CAPACITOR:ELECTROLYTIC				
	2	511020Z	1000UF 25V	C214 C216 C107	2		T
3		BCEL	CAPACITOR:ELECTROLYTIC				
	7	512290Z	2.2UF 25V	C122 C141 C156 C194	7		T
3		BCEL	CAPACITOR:ELECTROLYTIC				
	3	514790Z	4.7UF 25V	C091 C121 C165	3		T
3		BCEL	CAPACITOR:ELECTROLYTIC				
	1	811090Z	1UF 50V	C022 C076 C142 C144 C149 C154 C155 C161 C172 C182	1		T
3		BCEL	CAPACITOR:ELECTROLYTIC				
	1	814780Z	0.47UF 50V	C011	1		T
3		BCGC	CAPACITOR:SEMI-CONDUCTOR(SR)				
	1	511045Z	0.1UF 25V K	C139	1		N
3		BCKC	CAPACITOR:CERAMIC				
	2	511040Z	0.1UF 25V Z ZF	C187 C193	2		T
3		BCKC	CAPACITOR:CERAMIC				
	1	514730Z	0.047UF 25V Z ZF	C005 C017 C020 C025 C049 C064 C066 C069 C072 C073 C132 C140 C148 C206 C208 C217 C221 C222 C223	1		T
3		BCKD	CAPACITOR:CERAMIC				
	5	811036Z	0.01UF 50V M YD	C180 C197 C204 C218 C219	5		T
3		BCKD	CAPACITOR:CERAMIC				
	2	814726Z	0.0047UF 50V M YD	C199 C240 C052 C058 C060 C082 C115 C116 C118 C119 C123 C124 C134 C147 C209 C225 C227 C229	2		T
3		BCKG	CAPACITOR:CERAMIC				
	20	811020Z	0.001UF 50V Z YF	C002 C003 C015 C054 C059 C065 C067 C074 C084 C090 C111 C114 C117 C125 C133 C137 C195 C203 C205	20		T

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A C

A UL -C E SAA-C I DE-C
B UL F SAA J VDE
C CSA-C G BS -C
D CSA H BS
-C: CERTIFICATION CARD

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CUSTOMER MODEL

MFR S MODEL CODE
UT543AN

LEVEL	QTY	PART CODE	DESCRIPTION	REF NO	QTY	DELIVERY	REMARKS
3		BCKG	CAPACITOR: CERAMIC				
3		8147207	0.0047UF 50V Z YF	C043 C046 C047	3		T
3		BCQM	CAPACITOR: MYLAR				
3		8110257	0.001UF 50V K	C028 C029 C037	4		N
3		BCQM	CAPACITOR: MYLAR				
3		8110357	0.01UF 50V K	C089 C105 C224	3		N
3		BCQM	CAPACITOR: MYLAR				
3		8110457	0.1UF 50V K	C041 C163 C169	4		N
3		BCQM	CAPACITOR: MYLAR				
3		8115257	0.0015UF 50V K	C080	1		N
3		BCQM	CAPACITOR: MYLAR				
3		8115357	0.015UF 50V K	C151	1		N
3		BCQM	CAPACITOR: MYLAR				
3		8122257	0.0022UF 50V K	C013	1		N
3		BCQM	CAPACITOR: MYLAR				
3		8122357	0.022UF 50V K	C039 C092 C167	3		N
3		BCQM	CAPACITOR: MYLAR				
3		8147257	0.0047UF 50V K	C031 C152 C153	3		N
3		PCQM	CAPACITOR: MYLAR				
3		8147357	0.047UF 50V K	C018 C034 C103			N
				C164 C207 C211			
				C215			
3		RDAY	DIODE				
3		0001001	1N40 AM	D001 D002 D011	7		
3		RDAY	DIODE				
3		0001002	1N40 P	D012 D077	5		T
3		RDAY	DIODE: ZENER				
3		0020004	XZ-051	D026 D027	2		T
3		RDAY	DIODE: ZENER				
3		0020012	XZ-072	D059	1		T
3		RDAY	DIODE				
3		0030001	1S2339G	D063	1		T
3		RDAY	DIODE				
3		0063001	1S2075K	D031 D032	2		T
				D003 D005 D006			
				D007 D008 D009			
				D013 D014 D015			
				D016 D019 D020			
				D021 D022 D024			
				D025 D028 D029			
				D033 D034 D035			
				D036 D037 D038			
				D039 D041 D042			
				D043 D045 D046			
				D047 D048 D049			
				D050 D051 D052			
				D053 D054 D055			
				D056 D057 D058			
				D060 D064 D065			
				D066 D067 D068			
				D070 D073 D074			
				D076 D078 D079			

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(19)

A UL -C E SAA-C I VDE-C
 B UL F SAA J VDE
 C CSA-C G BS -C
 D CSA H BS
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LEVEL	ITEM	DESCRIPTION	REF. NO.	QTY	UNIT	DELIVERY	REMARKS
3	BLAY COIL	LA-120 TKAC-24073F	L001	1			N
3	BLAY COIL	LA-165 VTKXNA-X123120-TW	L018	1			N
3	BLAY COIL	LA-166 TKXC-18501N	L017 L019 L048	3			N
3	BLAY COIL	LA-220 TKXC-24279UH	L046	1			N
3	BLAY COIL	LA-237 TKAC-27871Y	L002	1			N
3	BLAY COIL	LA-259 TKXC-25117AN	L009	1			N
3	BLAY COIL	LA-260 TKXC-25114N	L008	1			N
3	BLAY COIL	LA-277 TKAC-25365N	L014	1			N
3	BLAY COIL	LA-350 TKAC-27242A	L011 L012 L049	3			N
3	BLAY COIL	LA-351 TKAC-27241A	L015	1			N
3	BLAY COIL	LA-352 TKXC-27205B7D	L045	1			N
3	BLAY COIL	LA-354 TKAC-27869N	L013	1			N
3	BLAY COIL	LB-119 119LC-13656A	L003 L052	2			N
3	BLAY COIL	LB-137 113CN-6344Z	L028 L029	2			N
3	BLAY COIL	LB-209 113CN-6485Z	L027 L030	2			N
3	BLAY COIL	LB-223 113CN-6514X	L024	1			N
3	BLAY COIL	LB-224 7MC-7172 ABW	L004 L005	2			N
3	BLAY COIL	LB-229 7MC-7174Y	L006	1			N
3	BLAY COIL	LB-230 113CN-6519X	L022 L025	2			N
3	BLAY COIL	LB-231 113CN-6538X	L023 L024	2			N
3	BLAY COIL	LC-184 2.5T.00.6UFW	L037	1			J
3	BLAY COIL	LD-077 F403-1.8*5*0.7	L010 L050 L051	3			N
3	BLAY COIL	LD-097 F404-3*5*1	L020 L021 L039 L040 L042 L043 L047 L054	8			N
3	BLAY COIL	LE-196	L036	1			N

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A UL -C E SAA-C I VDE-C
 B UL -F SAA -J VDE
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MFR S MODEL CODE
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LEVEL	N	QTY	DESCRIPTION	REF NO	QTY	REMARKS
3	BLEY	COIL		L044	1	N
3	0151001	LE-151 C-7931 04.0 6 1/2T				
3	BLEY	COIL		L035	2	N
3	N 0162001	LE-162 06.0 4 1/2T		L036		
3	BLEY	COIL		L038	1	N
3	0187001	LE-187 04.0 7T				
3	BLEY	COIL		L041	1	N
3	N 0215001	LE-215 03.0 4T				
3	BLZY	INDUCTOR:MOLDED		L016	1	N
3	0016101	LZ-016 SL0609-101K 100UH				
3	BLZY	INDUCTOR:MOLDED		L031	2	N
3	0016471	LZ-016 SL0609-471K 470UH		L032		
3	BPCY	PC BOARD:MAIN		PC001	1	N
3	N 0999AB2	PC-999AB				
3	BOXY	CRYSTAL		X001	1	N
3	0077001	0X-077 10.240				
3	BOXY	CRYSTAL		X004	1	N
3	0122002	0X-122 10.6975				
3	BOXY	CRYSTAL		X002	1	N
3	N 0131010	0X-131 15.0025				
3	BOXY	CRYSTAL		X003	1	N
3	N 0131011	0X-131 15.4525				
3	BRPB	RESISTOR:CARBON AXIAL LEAD		R251	1	N
3	1210342	10K 1/2W J				
3	BRPB	RESISTOR:CARBON AXIAL LEAD		R257	3	N
3	1215142	150 1/2W J		R258		
3	BRPB	RESISTOR:CARBON AXIAL LEAD		R033	3	N
3	1810142	100 1/8W J		R192		
3	BRPB	RESISTOR:CARBON AXIAL LEAD		R062	3	N
3	1810242	1K 1/8W J		R075		
3	BRPB	RESISTOR:CARBON AXIAL LEAD		R058	3	N
3	1810342	10K 1/8W J		R145		
3	GRPR	RESISTOR:CARBON AXIAL LEAD		R198	0	N
3	1810942	1 1/2W J		R254	2	N
3	BRPB	RESISTOR:CARBON AXIAL LEAD		R051	2	N
3	1915242	1.5K 1/8W J		R268		
3	BRPB	RESISTOR:CARBON AXIAL LEAD		R276	1	N
3	1818142	18K 1/8W J				
3	BRPB	RESISTOR:CARBON AXIAL LEAD		R191	1	N
3	1822142	220 1/8W J				
3	BRPB	RESISTOR:CARBON AXIAL LEAD		R046	1	N
3	1822442	220K 1/8W J				
3	BRPB	RESISTOR:CARBON AXIAL LEAD		R261	1	N
3	1822942	2.2 1/8W J				
3	BRPB	RESISTOR:CARBON AXIAL LEAD		R084	1	N
3	1823142	270 1/8W J				
3	BRPB	RESISTOR:CARBON AXIAL LEAD		R057	1	N
3	1823442	270K 1/8W J				

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LEVEL	PART NO.	DESCRIPTION	REF. NO.	QTY	UNIT	REMARKS
3	BRPB 1833247	RESISTOR:CARBON AXIAL LEAD 3.3K 1/8W J	R060 R293	4	N	
3	BRPB 1839247	RESISTOR:CARBON AXIAL LEAD 3.9K 1/8W J	R054 R152	2	N	
3	BRPB 1833347	RESISTOR:CARBON AXIAL LEAD 3.9K 1/8W J	R045	1	N	
3	BRPB 1847247	RESISTOR:CARBON AXIAL LEAD 4.7K 1/8W J	P024	1	N	
3	BRPB 1847347	RESISTOR:CARBON AXIAL LEAD 4.7K 1/8W J	R029	1	N	
3	BRPB 1856247	RESISTOR:CARBON AXIAL LEAD 5.6K 1/8W J	R279	1	N	
3	BRPB 1868047	RESISTOR:CARBON AXIAL LEAD 6.8K 1/8W J	P009 R106	2	N	
3	BRPB 1868147	RESISTOR:CARBON AXIAL LEAD 6.8K 1/8W J	R049 R091 R226	3	N	
3	BRPJ 1047057	RESISTOR:METAL OXIDE 47 1W K	P285	1	N	
3	BRPB 1810047	RESISTOR:CARBON FORMED VERT 10 1/8W J	R262	1	N	
3	BRPB 1810147	RESISTOR:CARBON FORMED VERT 100 1/8W J	R019 R028 R076 R083 R099 R196 R269	10	N	
3	BRPB 1810247	RESISTOR:CARBON FORMED VERT 1K 1/8W J	R037 R074 R103 R107 R123 R131 R147 R150 R170 R173 R174 R176 R184 R185 R200 R229 R230 R242 R243 R252 R266	24	N	
3	BRPB 1810347	RESISTOR:CARBON FORMED VERT 10K 1/8W J	R001 R012 R015 R039 R067 R068 R069 R081 R126 R165 R171 R175 R177 R203 R224 R235	24	N	
3	BRPB 1810447	RESISTOR:CARBON FORMED VERT 100K 1/8W J	R011 R043 R052 R112 R117 R144 R204	2	N	
3	BRPB 1810547	RESISTOR:CARBON FORMED VERT 1M 1/8W J	R209	1	N	

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ORDER & MATERIAL CODE
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B UL -F SAA J VDE
C CSA-C G BS -C
D CSA H BS

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-C CERTIFICATION CARD HT86-014

LEVEL	N°	PART CODE	DESCRIPTION	REF. NO.	QTY	UNIT	DELIVERY	REMARKS
3		BRUR	RESISTOR: CARBON FORMED VERT					
		1812247	1.2K 1/8W J	R097	2			N
3		BRUR	RESISTOR: CARBON FORMED VERT					
		1812347	12K 1/8W J	P202	1			N
3		BRUR	RESISTOR: CARBON FORMED VERT					
		1815047	15 1/8W J	R124	2			N
3		BRUR	RESISTOR: CARBON FORMED VERT					
		1815147	150 1/8W J	R105	2			N
3		BRUR	RESISTOR: CARBON FORMED VERT					
		1815247	1.5K 1/8W J	R092	2			N
				R183	2			N
				R223	2			N
				R287	2			N
3		BRUR	RESISTOR: CARBON FORMED VERT					
		1815347	15K 1/8W J	R132	7			N
3		BRUR	RESISTOR: CARBON FORMED VERT					
		1815447	150K 1/8W J	R278	4			N
3		BRUR	RESISTOR: CARBON FORMED VERT					
		1815547	1.5M 1/8W J	F193	2			N
3		BRUR	RESISTOR: CARBON FORMED VERT					
		1818147	180 1/8W J	R036	2			N
3		BRUR	RESISTOR: CARBON FORMED VERT					
		1818247	1.8K 1/8W J	R134	1			N
3		BRUR	RESISTOR: CARBON FORMED VERT					
		1822147	220 1/8W J	R234	1			N
3		BRUR	RESISTOR: CARBON FORMED VERT					
		1822247	2.2K 1/8W J	R004	3			N
				R021	3			N
				R073	3			N
				R125	3			N
				F094	3			N
				F149	3			N
				R137	3			N
				R031	3			N
				P007	3			N
				F238	3			N
				P048	3			N
				P005	3			N
				R244	3			N
				R018	3			N
				P057	3			N
				P139	3			N
				F286	3			N
				R092	3			N
				F055	3			N
				R141	3			N
				R178	3			N
				R201	3			N
				R071	3			N
				R098	3			N
				R178	3			N
				R288	3			N
				R129	3			N
				R225	3			N
				R214	3			N
				R104	3			N
				R027	3			N
				R106	3			N
				R017	3			N
				R267	3			N
				R056	3			N
				R108	3			N
				R064	3			N
				R195	3			N
				R222	3			N
				R142	3			N
				R167	3			N

A UL A E SAA C J VDE G
 B UL F SAA J VDE
 C CSA G BS -C
 D CSA H BS
 -C: CERTIFICATION CARD

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UT543AN

LEVEL	QTY	DESCRIPTION	REF NO	QTY	REF NO	QTY	REF NO
3	1	BRUB RESISTOR:CARBON FORMED VERT	R227	1	R253	1	R256
3	1	BRUB RESISTOR:CARBON FORMED VERT	R203	1	R067	1	R148
3	1	BRUB RESISTOR:CARBON FORMED VERT	R209	1	R237	1	R272
3	1	BRUB RESISTOR:CARBON FORMED VERT	R275	1		1	
3	1	BRUB RESISTOR:CARBON FORMED VERT	R087	1	R154	1	R155
3	1	BRUB RESISTOR:CARBON FORMED VERT	R156	1	R161	1	R162
3	1	BRUB RESISTOR:CARBON FORMED VERT	R163	1	R182	1	R211
3	1	BRUB RESISTOR:CARBON FORMED VERT	R215	1	R216	1	R219
3	1	BRUB RESISTOR:CARBON FORMED VERT	R236	1		1	
3	1	BRUB RESISTOR:CARBON FORMED VERT	P006	1	R059	1	R061
3	1	BRUB RESISTOR:CARBON FORMED VERT	R101	1	R206	1	R231
3	1	BRUB RESISTOR:CARBON FORMED VERT	R014	1	R205	1	
3	1	BRUB RESISTOR:CARBON FORMED VERT	R135	1	R228	1	
3	1	BRUB RESISTOR:CARBON FORMED VERT	P273	1	R282	1	
3	1	BRUB RESISTOR:CARBON FORMED VERT	P088	1	R095	1	R281
3	1	BRUB RESISTOR:CARBON FORMED VERT	R117	1	R199	1	
3	1	BRUB RESISTOR:CARBON FORMED VERT	P266	1		1	
3	1	BRUB RESISTOR:CARBON FORMED VERT	P003	1	R096	1	
3	1	BRUB RESISTOR:CARBON FORMED VERT	R013	1	R034	1	P038
3	1	BRUB RESISTOR:CARBON FORMED VERT	P072	1	R086	1	R133
3	1	BRUB RESISTOR:CARBON FORMED VERT	R144	1	R295	1	
3	1	BRUB RESISTOR:CARBON FORMED VERT	R022	1	R085	1	R114
3	1	BRUB RESISTOR:CARBON FORMED VERT	R116	1		1	
3	1	BRUB RESISTOR:CARBON FORMED VERT	R241	1		1	
3	1	BRUB RESISTOR:CARBON FORMED VERT	R093	1	R291	1	
3	1	BRUB RESISTOR:CARBON FORMED VERT	P044	1	R032	1	
3	1	RTFY TRAF:FORMER:AF CHOKE	T001	1		1	
3	1	RTFY TRAF:FORMER:AF CHOKE	TP008	1	TP009	1	TP010
3	1	RTFY TRAF:FORMER:AF CHOKE	JP012	1	JP014	1	JP021
3	1	RTFY TRAF:FORMER:AF CHOKE	JP025	1	JP026	1	JP027
3	1	RTFY TRAF:FORMER:AF CHOKE	JP037	1	JP043	1	JP044
3	1	RTFY TRAF:FORMER:AF CHOKE	JP045	1	JP049	1	JP053
3	1	RTFY TRAF:FORMER:AF CHOKE	JP017	1	JP020	1	JP027
3	1	RTFY TRAF:FORMER:AF CHOKE	JP028	1	JP029	1	JP033

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A UL -C E SAA-C (VRE-
B UL F SAA VDE
C CSA-C G BS -C
D CSA H BS
-C: CERTIFICATION CARD

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BILL OF MATERIAL

UT547AN
CUSTOMER MODEL REVISION NOTE NO

LEVEL	QTY	DESCRIPTION	REVISION	QTY	DESCRIPTION	REVISION	QTY	DESCRIPTION	REVISION
3	1	0052003 JUMPER WIRE YY-052 10.0MM		11	JP038 JP047 JP052				
					JP054 JP057				
3	1	0052004 JUMPER WIRE YY-052 12.5MM		6	JP002 JP009 JP016				
					JP031 JP036 JP042				
3	1	0052005 JUMPER WIRE YY-052 15.0MM		5	JP050 JP051 JP060				
3	1	0052006 JUMPER WIRE YY-052 17.5MM		2	JP007 JP018 JP039				
					JP040 JP046 JP055				
3	1	0052007 JUMPER WIRE YY-052 20.0MM		3	JP006 JP019 JP030				
					JP035 JP041				
3	1	0052008 JUMPER WIRE YY-052 22.5MM		1	JP005 JP032				
3	1	0052009 JUMPER WIRE YY-052 25.0MM		2	JP004 JP022 JP023				
					JP008				
3	1	0052010 JUMPER WIRE YY-052 27.5MM		2	JP001 JP003				
					JP010 JP015				
3	1	0052012 JUMPER WIRE YY-052 2.5MM		1	JP013				
3	1	0473114 TRANSISTOR DB-028 2SA473-Q		1	TR048				
3	1	0733115 TRANSISTOR DB-003 2SA733-P		1	TR034				
3	1	0525103 TRANSISTOR DB-106 2SB525-C		2	TR035 TR037				
					TR030 TR031 TR032				
3	1	0945407 TRANSISTOR DB-224 2SC945A-Q		10	TR033 TR036 TR038				
					TR040 TR049 TR051				
3	1	1675111 TRANSISTOR DB-259 2SC1675-L		2	TR052				
3	1	1730111 TRANSISTOR DB-292 2SC1730-L		1	TR029 TR046				
3	1	1973115 TRANSISTOR DB-272 2SC1973-SSP		1	TR045				
3	1	0471111 TRANSISTOR DB-311 2SD471-L		1	TR044				
3	1	0182101 RESISTOR SEMI-FIXED RT-182 TT24R 100R		2	TR050				
3	1	0182102 RESISTOR SEMI-FIXED RT-182 TT24R 10R		2	VR009 VR010				
3	1	0182103 RESISTOR SEMI-FIXED RT-182 TT24R 100R		5	VR011 VR014				
					VR001 VR002 VR005				
3	1	0182104 RESISTOR SEMI-FIXED RT-182 TT24R 100R		1	VR007 VR015				
3	1	0182105 RESISTOR SEMI-FIXED RT-182 TT24R 100R		1	VR008				
3	1	0182106 RESISTOR SEMI-FIXED RT-182 TT24R 100R		1	VR012 VR017				

A U/L -C E SAA-G I YDE-C
 B U/L F SAA J YDIE
 C CSA-C G BS -C
 D CSA H BS
 -C : CERTIFICATION CARD

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BILL OF MATERIAL

REVISION NOTE NO.

CUSTOMER MODEL

MFR'S MODEL CODE
 UT542AN

LEVEL	QTY	REF. NO.	DELIVERY	REMARKS
3	1	VP006		RESISTOR:SEMI-FIXED
				RT-182 IT24P 50KB
3	2	VP003		RESISTOR:SEMI-FIXED
				RT-182 IT24P 500KB
2	1	85-00000		UT-543A(N)(E) PARTS
				ZANREY
3	2	C503		CAPACITOR:CERAMIC
				8110207 0.001UF 50V Z YF
3	2	C507		CAPACITOR:CERAMIC
				8110302 0.01UF 50V Z YF
3	2	C502		CAPACITOR:CERAMIC
				8147202 0.0047UF 50V Z YF
3	1	D403		DIODE:LED
				0100001 TL9-124
3	1	D401		DIODE:LED
				0113002 UR-2020
3	1	D402		DIODE:LED
				0116001 TLG-124A
3	1	TR039		TRANSISTOR
				0473114 DB-028 2SA473-0
3	1	TR047		TRANSISTOR
				0754114 DB-110 2SP754-0
3	1	TR401		TRANSISTOR
				0945507 DB-224 2SC045A-0
3	1	TR043		TRANSISTOR
				2166103 DB-331 2SC2166-C
3	2	TR041		TRANSISTOR
				2312103 DB-332 2SC2312-C
3	1	IC006		INTEGRATED CIRCUIT
				0149001 UPC182H
3	3	D069		VARIABLE
				0020001 MV-1Y
3	1	F001		FUSE
				0014600 FS-014 1A
3	1	J502		JACK
				0052002 JK-052 FLACK
3	1	J503		JACK W/C LUG
				0069002 JK-068 H-751P
3	1	J501		JACK
				0087001 JK-087 4S-L-02
3	2	L503		COIL
				0033001 LD-032
3	1	L502		COIL
				0077001 LD-077 (F22-1.8+5+0.7
3	1	L501		COIL
				0089001 LD-089
3	1	M001		WICOPHONY
				0121001 MP-021
3	1	M501		WTF
				0247002 1-217 150

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A UL -C E SAA-C I VDE-C
 B UL -F SAA J VDE
 C CSA-C G BS -C
 D CSA H BS
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REVISION NOTE NO

CUSTOMER MODEL

UT543AN

BILL OF MATERIAL

LEVEL	QTY	UNIT	DESCRIPTION	REF. NO.	QTY	UNIT	DESCRIPTION	REF. NO.
3	N	BPBY	PC BOARD:SW					
		0005AAZ	PB-005AA				PC006	
3	N	BPBY	PC BOARD:CHECK POINT					
		0100AAZ	PB-100AA				PC005	
3	N	BPCY	PC BOARD:MIC JACK					
		0266AAZ	PC-266AA				PC004	
3	N	BPCY	PC BOARD:CH SW					
		0783ABZ	PC-783AB				PC002	
3	N	BPCY	PC BOARD:LED					
		0960AAZ	PC-960AA				PC003	
3	N	BRUB	RESISTOR:CARBON FORMED VERT					
		181014Z	100 1/8W J				R421	
3	N	BRUB	RESISTOR:CARBON FORMED VERT					
		181524Z	1.5K 1/8W J				R424	
3	N	BRUB	RESISTOR:CARBON FORMED VERT					
		182224Z	2.2K 1/8W J				P417	R419
3	N	BRUB	RESISTOR:CARBON FORMED VERT					
		183314Z	330 1/8W J				P401	R416
3	N	BRUB	RESISTOR:CARBON FORMED VERT					
		184704Z	47 1/8W J				R423	
3	N	BRUB	RESISTOR:CARBON FORMED VERT					
		185624Z	5.6K 1/8W J				P414	
3	N	BRUB	RESISTOR:CARBON FORMED VERT					
		186814Z	680 1/8W J				P402	R403
							P405	R406
							R408	R409
							R411	R412
							R413	
3	N	BRUB	RESISTOR:CARBON FORMED VERT					
		126824Z	6.8K 1/8W J				P415	
3	N	BRVY	RESISTOR:VARIABLE					
		0222001	RV-222 20K				VP503	
3	N	BRVY	RESISTOR:VARIABLE					
		0320001	RV-320 50KA				VP501	
3	N	BRVY	RESISTOR:VARIABLE					
		0447001	RV-447 50KB				VP502	
3	N	BRVY	RESISTOR:VARIABLE					
		0485001	RV-485 1K. 1K				VP504	
3	N	BSPY	SPEAKER					
		0053001	SP-053				SP501	
3	N	BSRY	SWITCH:ROTARY					
		0127001	SR-127 SPH1034N				S509	
3	N	BSRY	SWITCH:ROTARY					
		0205001	SR-205 SPH1047N				S502	
3	N	BSRY	SWITCH:ROTARY					
		0208001	SR-208 USW-0197				S401	
3	N	PSWY	SWITCH:PUSH					
		0317001	SW-317 4F-00C1DE2120V1				S404	
3	N	BWYF	FLAT CABLE					
		0230502	WF-023 6S-ED-3.3				FCC01	
3	N	BYBY	INSULATION SHEET					
		0005004	YD-005 JCC				YY003	

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CUSTOMER	
MODEL	

REF S MOLL COE
IT563AN

QTY	UNIT CODE	DESCRIPTION	REF. NO.	QTY	UNIT CODE	DESCRIPTION	REF. NO.
3	BYDY	INSULATION SHEET					
	YD-047	S-32					
3	BYDY	INSULATION SHEET					
	YD-050	AC238					
3	BYDY	INSULATION SHEET					
	YY-027						
3	BYDY	JUMPER WIRE					
	YY-052	10-0MM					
3	BYDY	BUSHING: TIGHT CERAMIC					
	YY-172						
3	CZDZ	WIRES ASSEMBLED					
	W-070234	1500 W/P					
3	AT54	UT-543A(N) WIRE					
2	3ANBEW						
	CUAA	WIRE					
3	007022Z	UL 1007 #24 5-70-5 PRN					
	CUAA	WIRE					
3	008021Z	UL 1007 #24 5-80-3 PRN					
	CUAA	WIRE					
3	010022Z	UL 1007 #24 5-100-5 PRN					
	CUAA	WIRE					
3	010044Z	UL 1007 #24 10-100-10 PRN					
	CUAB	WIRE					
3	004011Z	UL 1007 #24 3-40-3 RED					
	CUAB	WIRE					
3	006011Z	UL 1007 #24 3-60-3 RED					
	CUAB	WIRE					
3	006021Z	UL 1007 #24 5-60-3 RED					
	CUAB	WIRE					
3	006022Z	UL 1007 #24 5-60-5 RED					
	CUAB	WIRE					
3	008011Z	UL 1007 #24 3-80-3 RED					
	CUAB	WIRE					
3	008021Z	UL 1007 #24 5-80-3 RED					
	CUAB	WIRE					
3	010022Z	UL 1007 #24 5-100-5 RED					
	CUAB	WIRE					
3	012042Z	UL 1007 #24 10-120-5 RED					
	CUAC	WIRE					
3	006011Z	UL 1007 #24 3-60-3 ORG					
	CUAC	WIRE					
3	008011Z	UL 1007 #24 3-80-3 ORG					
	CUAC	WIRE					
3	008021Z	UL 1007 #24 5-80-3 ORG					
	CUAC	WIRE					
3	012021Z	UL 1007 #24 5-120-3 ORG					
	CUAC	WIRE					
3	012022Z	UL 1007 #24 5-120-5 ORG					
	CUAC	WIRE					
3	009022Z	UL 1007 #24 5-60-5 YEL					
	CUAC	WIRE					

A UL - C E SAA - C I VDE - C
 B UL F SAA J VDE
 C CSA - C G BS - C
 D CSA H BS

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- C CERTIFICATION CARD

BILL OF MATERIAL

REVISION NOTE NO.

CUSTOMER MODEL

WFL 5 WFLC DATE
 UT543AN

LEVEL	QTY	PLANT CODE	DESCRIPTION	REF NO.	QTY	DELIVERY	REMARKS
3	CUAD	WIRE	UL 1007 #24 5-80-3 YEL	W008	W017	W031	N
3	CUAD	WIRE	UL 1007 #24 5-100-3 YEL	W041	W047		N
3	CUAD	WIRE	UL 1007 #24 5-100-5 YEL	W021			N
3	CUAF	WIRE	UL 1007 #24 5-80-3 BLU	W003	W032	W045	N
3	CUAF	WIRE	UL 1007 #24 5-100-3 BLU	W020			N
3	CUAF	WIRE	UL 1007 #24 5-120-3 PLU	W030			N
3	CUAG	WIRE	UL 1007 #24 5-60-5 VIO	W039			N
3	CUAG	WIRE	UL 1007 #24 5-80-3 VIO	W033			N
3	CUAG	WIRE	UL 1007 #24 5-90-3 VIO	W018			N
3	CUAG	WIRE	UL 1007 #24 5-100-3 VIO	W029			N
3	CUAH	WIRE	UL 1007 #24 5-200-3 VIO	W051	W052		N
3	CUAH	WIRE	UL 1007 #24 5-80-3 GRV	W013			N
3	CUAH	WIRE	UL 1007 #24 5-80-5 GRV	W022	W036		N
3	CUAJ	WIRE	UL 1007 #24 5-100-3 GRV	W046			N
3	CUAJ	WIRE	UL 1007 #24 5-40-3 WHT	W042			N
3	CUAJ	WIRE	UL 1007 #24 5-60-3 WHT	W053			N
3	CUAJ	WIRE	UL 1007 #24 5-80-3 WHT	W016			N
3	CUAJ	WIRE	UL 1007 #24 5-80-5 WHT	W017			N
3	CUAK	WIRE	UL 1007 #24 5-100-3 WHT	W006	W011		N
3	CUAK	WIRE	UL 1007 #24 3-40-3 PLV	W054			N
3	CUAK	WIRE	UL 1007 #24 3-60-3 PLV	W007			N
3	CUAP	WIRE	UL 1007 #24 5-80-3 PLV	W043	W050		N
3	CUAP	WIRE	UL 1007 #24 5-80-5 PLV	W035			N
3	CUAP	WIRE	UL 1007 #24 5-80-3 PLV	W001	W002		N
3	CUAP	WIRE	UL 1007 #24 5-100-3 PLV				N

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MSR 5 MODEL 500C	CUSTOMER	REVISION	NOTE NO
UTS47AN	MODEL		

QTY	PART NO.	DESCRIPTION	REV. NO.	CITY	COUNTRY	DATE
3	CUAV 006021Z	WIRE UL 1007 #24 5- 60- 3 PNK	W014	1		N
3	CUAV 008021Z	WIRE UL 1007 #24 5- 80- 3 PNK	W044	1		N
3	CUAV 010022Z	WIRE UL 1007 #24 5-100- 5 PNK	W025	1		N
1	AT54 3ANPM	UT-543A(H)(M)	20-00000	1		
2	ECSY 206060P	CHASSIS (COMP.) ALP#2+OT		1		N
3	HCSI 206040P	CHASSIS ALP#2+OT		1		T
3	MNUT 403988T	SUPPORTER:MOUNTING BRACKET BSBM/NON OIL		4		T
3	SSCW 633004S	RIVET:CYLINDER HD D3X4	1	3		T
3	TSTD 0150003	TERMINAL:LUG+SOLDER D3		3		T
2	AT54 3ANMP	UT-543A(H)(M) PARTS	90-00000	1		
3	GCMF 211492Z	PANEL:FRONT PAINT:SILVER,SILK,ABS		1		N
3	GHDL 404790Z	HOLDER:LED ACRYL,PURPLE		1		N
3	GHDL 411859Z	HOLDER:LED ABS,BLACK		1		N
3	GMSC 405716Z	SCREW:MOUNTING ABS INST CLR BLACK		4		N
3	GNBC 404041Z	KNOR:CHANNEL ABS,CR		1		N
3	GNBP 404046Z	KNOB:PUSH-BUTTON ABS,CR		4		N
3	GNBW 404046P	KNOR (OUTER) ABS CR		1		N
3	GNBW 404047C	KNOR (INNER) ABS CR		1		N
3	GNBY 404045A	KNOP ABS,CR		3		N
3	GNBY 404058Z	KNOR ABS,CR		2		N
3	HPCT 374044A	PRACKET SPCC,ZMC,1,GT		1		N
3	HCOE 211206Z	COVER:BOTTOM VINYLTOP,SP-KO#,E-TYPE,1T		1		N
3	HCOI 210568Z	COVER:TOP SB-KO#,1,QT,E-TYPE		1		N
3	HCEI 204021A	CHASSIS:FRONT SPCC,1-OT,ZMC		1		N
3	HCEM 204022C	HOLDER:METER SPCC,1-OT,ZMC		1		N

A UL -C E SAA-C I VDE-C
 B UL -F SAA J VDE
 C CSA-C S BS -C
 D CSA H BS
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REVISION NOTE NO

CUSTOMER MODEL

REF S INCKEL CODE
 UT543AN

LEVEL	ITEM NO	DESCRIPTION	QTY	UNIT	REMARKS
1	1	HOLDER:SWITCH			
2	411498Z	SPCC,1,OT,ZMC	1		
1	2	HEAT SINK			
2	411429Z	ALP,2,OT,NON OIL	1		
1	3	HANGER:MICROPHONE			
2	402919Z	SPCC,1,OT,NI	1		
1	4	SHIELD PLATE			
2	402163Z	SPT 0.3T NONOIL	1		
1	5	METAL STRIP:EARTH			
2	405522Z	PLATING METAL,0.5T	1		
1	6	PLATE:CONTROL			
2	411423Z	PVC,1,OT,SILV	1		
1	7	HOLDER:LED			
2	405905Z	EPT,BLACK	2		
1	8	WASHER:RUBBER			
2	400638Z	NEOPRENE,BLACK,7*15*2.0T	4		
1	9	LABEL:WARNING,DC CORD			
2	419000Z	PAPER,PRINT	1		
1	10	LABEL:SERIAL NO.			
2	401500Z	PAPER,PRINT	3		
1	11	HEAT SINK			
2	411490Z	A2014S-T4,BLACK,ALUMITE	1		
1	12	CUSHION:METER			
2	404326A	NEOPRENE SP,2.0T,BLACK	1		
1	13	PROTECTION COVER:FRONT PANEL			
2	304029B	PAPER NO.7	1		
1	14	SPACER			
2	416094Z	**	1		
1	15	WASHER:FELT			
2	402225Z	D6*3T,WHITE	2		
1	16	WOOL-COATED PAPER:WOOL TACK			
2	402865Z	WOOL PAPER,10*150*0.3T	2		
1	17	INSULATION PLATE			
2	410274Z	PVC,0.5T	1		
1	18	SCREW:PAN HD *			
2	123006S	M3X6 PLASTIC	1		
1	19	SCREW:FLAT HD *			
2	133008H	M3X6 NI	4		
1	20	SCREW:RIND HD *			
2	192012H	M2X12 NI	2		
1	21	SCREW:RIND HD *			
2	192012H	M2X12 NI	2		
1	22	SCREW:RIND HD *			
2	193006H	M3X6 NI	10		
1	23	SCREW:RIND HD *			
2	193006H	M3X6 NI	2		
1	24	SCREW:RIND HD *			
2	193006H	M3X6 NI	3		
1	25	SCREW:RIND HD *			
2	193006H	M3X6 NI	4		

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BILL OF MATERIAL

MFR'S MODEL CODE	CUSTOMER	REVISION	NOTE NO
11543AN			

[illegible]

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A	UL	-C	E	SAA	-C	J	DE
B	UL		F	SAA		J	DE
C	CSA	-C	G	BS	-C		
D	CSA		H	BS			

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REVISION NOTE NO

CUSTOMER	MODEL
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UNIT 547 AN
MFR'S MODEL CODE

[illegible]

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A C

AUL -C E SAA-C J VDE-C
BUL -F SAA -J VDE
CUSA-C G BS -C
DUSA -H BS
-C CERTIFICATION CARD

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REVISION NOTE NO.

CUSTOMER MODEL

UNIT 547AN

ITEM NO.	DESCRIPTION	QTY	UNIT	REF. NO.	QTY	UNIT	REF. NO.
0063001	DIODE	1	0063001	0019	BDAY-0181001	1	DIODE
0063001	1S2075K	1	0063001	0020	BDAY-0137001	1	1S1555
0063001	DIODE	1	0063001	0020	BDAY-0181001	1	DIODE
0063001	1S2075K	1	0063001	0021	BDAY-0137001	1	1N4148
0063001	DIODE	1	0063001	0021	BDAY-0181001	1	DIODE
0063001	1S2075K	1	0063001	0022	BDAY-0137001	1	1S1555
0063001	DIODE	1	0063001	0022	BDAY-0181001	1	DIODE
0063001	1S2075K	1	0063001	0024	BDAY-0137001	1	1N4148
0063001	DIODE	1	0063001	0024	BDAY-0181001	1	DIODE
0063001	1S2075K	1	0063001	0025	BDAY-0137001	1	1S1555
0063001	DIODE	1	0063001	0025	BDAY-0181001	1	DIODE
0063001	1S2075K	1	0063001	0028	BDAY-0137001	1	1N4148
0063001	DIODE	1	0063001	0028	BDAY-0181001	1	DIODE
0063001	1S2075K	1	0063001	0029	BDAY-0137001	1	1S1555
0063001	DIODE	1	0063001	0029	BDAY-0181001	1	DIODE
0063001	1S2075K	1	0063001	0033	BDAY-0137001	1	1N4148
0063001	DIODE	1	0063001	0033	BDAY-0181001	1	DIODE
0063001	1S2075K	1	0063001	0034	BDAY-0137001	1	1S1555
0063001	DIODE	1	0063001	0034	BDAY-0181001	1	DIODE
0063001	1S2075K	1	0063001	0035	BDAY-0137001	1	1N4148
0063001	DIODE	1	0063001	0035	BDAY-0181001	1	DIODE
0063001	1S2075K	1	0063001	0036	BDAY-0137001	1	1S1555
0063001	DIODE	1	0063001	0036	BDAY-0181001	1	DIODE
0063001	1S2075K	1	0063001	0037	BDAY-0137001	1	1N4148
0063001	DIODE	1	0063001	0037	BDAY-0181001	1	DIODE
0063001	1S2075K	1	0063001	0037	BDAY-0137001	1	1S1555
0063001	DIODE	1	0063001	0037	BDAY-0181001	1	DIODE

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A UL -C E SAA-C I VDE-C
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 C CSA-C G BS -C
 D CSA H BS

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BILL OF MATERIAL

MFR'S MODEL CODE
 UT543AN

CUSTOMER
 MODEL

REVISION NOTE NO

LEVEL	ITEM CODE	DESCRIPTION	REF. NO.	QTY	DELIVERY	REMARKS
	BDAY	DIODE				DIODE
	0063001	1S2075K	D038	BDAY-0137001		1N4148
	BDAY	DIODE				DIODE
	0063001	1S2075K	D038	BDAY-0181001		1S1555
	BDAY	DIODE				DIODE
	0063001	1S2075K	D039	BDAY-0137001		1N4148
	BDAY	DIODE				DIODE
	0063001	1S2075K	D039	BDAY-0181001		1S1555
	BDAY	DIODE				DIODE
	0063001	1S2075K	D041	BDAY-0137001		1N4148
	BDAY	DIODE				DIODE
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	0063001	1S2075K	D049	BDAY-0181001		1S1555
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	0063001	1S2075K	D051	BDAY-0181001		1S1555
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	0063001	1S2075K	D052	BDAY-0137001		1N4148

DATE 86 12 10
PAGE 023

BILL OF MATERIAL

REVISION	NOTE NO.
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CUSTOMER	
MODEL	

MFR 2 MODEL CODE
ITS 63 AN

REV	DATE	DESCRIPTION	REF. NO.	QTY	UNIT	REMARKS	DATE
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		BDAY DIODE				DIODE	
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		0063001 1S20					

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-CERTIFICATION CARD

BILL OF MATERIAL

REVISION	NOTE NO
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CUSTOMER	
MODEL	

MFR'S MODEL CODE
ITS63AN

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B06Y DIODE	D072 BDAY-0137001			DIODE
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0063001 1S2075K				1S1555
B06Y DIODE	D073 BDAY-0137001			DIODE
0063001 1S2075K				1N4148
B06Y DIODE	D073 BDAY-0181001			DIODE
0063001 1S2075K				1S1555
B06Y DIODE	D074 BDAY-0137001			DIODE
0063001 1S2075K				1N4148
B06Y DIODE	D074 BDAY-0181001			DIODE
0063001 1S2075K				1S1555
B06Y DIODE	D076 BDAY-0137001			DIODE
0063001 1S2075K				1N4148
B06Y DIODE	D076 BDAY-0181001			DIODE
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B06Y DIODE	D078 BDAY-0137001			DIODE
0063001 1S2075K				1N4148
B06Y DIODE	D078 BDAY-0181001			DIODE
0063001 1S2075K				1S1555
B06Y DIODE	D079 BDAY-0137001			DIODE
0063001 1S2075K				1N4148
B06Y DIODE	D079 BDAY-0181001			DIODE
0063001 1S2075K				1S1555
B06Y DIODE	D081 BDAY-0137001			DIODE
0063001 1S2075K				1N4148
B06Y DIODE	D081 BDAY-0181001			DIODE
0063001 1S2075K				1S1555
B06Y DIODE	D040 BDAY-0006C09			DIODE: VARI-CAP
0063001 1S2075K				1S2488EB
B06Y DIODE	D044 BDAY-0006C09			DIODE: VARI-CAP
0063001 1S2075K				1S2488EB
B06A TRANSISTOR	TR006 BDBA-0733506			TRANSISTOR
0733115 DB-003 2SA733A-P				DB-003 2SA733A-P
B06C TRANSISTOR	TR022 BDBZ-0520C01			TRANSISTOR
1730111 BR-269 2SC1770-L				BR-269 MPS H 10
B06C TRANSISTOR	TR022 BDBZ-0521C01			TRANSISTOR
1730111 BR-269 2SC1770-L				BR-521 LSP1200
B06Y INTEGRATED CIRCUIT	IC004 BDEY-0526C01			INTEGRATED CIRCUIT
0145001 MJM4552D				BA455P
B06Y INTEGRATED CIRCUIT	IC004 PDEY-0526C01			INTEGRATED CIRCUIT
0145001 NJM4553D				M5218P
B06Y INTEGRATED CIRCUIT	IC002 PDEY-0196C01			INTEGRATED CIRCUIT
0196002 UPC1025UA				UPC1028H
B06Y INTEGRATED CIRCUIT	IC008 BDEY-0814C01			INTEGRATED CIRCUIT
0250001 MC140088CP				HD14008BP
B06Y INTEGRATED CIRCUIT	IC009 BDEY-0287C01			INTEGRATED CIRCUIT
0250001 MC140091CP				TC4008EP
B06Y INTEGRATED CIRCUIT	IC009 BDEY-0814C01			INTEGRATED CIRCUIT
0250001 MC140091CP				HD14008BP

A UL -G E SAA-C I VDE-C
 B UL -F SAA J VDE
 C CSA-C G BS -C
 D CSA H BS
 -C CERTIFICATION CARD

DATE 86.12.10
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BILL OF MATERIAL

REVISION NOTE NO.

CUSTOMER MODEL

MFR S MODEL CODE
 UT543AN

LEVEL	ITEM CODE	DESCRIPTION	QTY	UNIT	REMARKS
	BDEY	INTEGRATED CIRCUIT			INTEGRATED CIRCUIT
	0250001	MC14008BCP	1C009	BDEY-0287001	TC4008BP
	BDEY	INTEGRATED CIRCUIT			INTEGRATED CIRCUIT
	0312001	NJM2902N	1C001	BDEY-0284001	TA75902P
	BFLY	FILTER:CRYSTAL			FILTER:CRYSTAL
	0096001	FL-096 MF10J02	FL003	9FLY-0050001	FL-090 UMF-05P(10.695)
	BLCY	COIL			COIL
	0134001	LC-184 2.5T.D0.6UEW	L037	9LCY-0018001	LC-018 TC-71024
	BDBA	TRANSISTOR			TRANSISTOR
	0233115	DB-003 2SA733-P	TR034	9DBA-0733506	DB-003 2SA733A-P
	BDBB	TRANSISTOR			TRANSISTOR
	0525103	DB-106 2SB525-C	TR035	9DBB-0525104	DB-106 2SB525-D
	BDBB	TRANSISTOR			TRANSISTOR
	0525103	DB-106 2SB525-C	TR035	9DBB-0525105	DB-106 2SB525-E
	BDBB	TRANSISTOR			TRANSISTOR
	0525103	DB-106 2SB525-C	TR037	9DBB-0525104	DB-106 2SB525-D
	BDBB	TRANSISTOR			TRANSISTOR
	0525103	DB-106 2SB525-C	TR037	9DBB-0525105	DB-106 2SB525-E
	BDBC	TRANSISTOR			TRANSISTOR
	1730111	DB-269 2SC4730-L	TR045	9DBZ-0520001	DB-220 MPS H 10
	BDBC	TRANSISTOR			TRANSISTOR
	1730111	DB-269 2SC4730-L	TR045	9DBZ-0521001	DB-521 LSP1200
	BDBB	TRANSISTOR			TRANSISTOR
	0754114	DB-110 2SB754-0	TR047	9DBB-0754124	DB-110 2SB754-Y
	BDBC	TRANSISTOR			TRANSISTOR
	2312103	DB-332 2SC2312-C	TR041	9DBC-2312102	DB-332 2SC2312-B
	BDBC	TRANSISTOR			TRANSISTOR
	2312103	DB-332 2SC2312-C	TR041	9DBC-2312104	DB-332 2SC2312-D
	BDBC	TRANSISTOR			TRANSISTOR
	2312103	DB-332 2SC2312-C	TR042	9DBC-2312102	DB-332 2SC2312-B
	BDBC	TRANSISTOR			TRANSISTOR
	2312103	DB-332 2SC2312-C	TR042	9DBC-2312104	DB-332 2SC2312-D
	BJKY	JACK W/O LUG			JACK
	0068002	JK-068 N-7512	J503	9JKY-0370002	JK-170 W/O LUG
	BRVY	RESISTOR:VARIABLE			RESISTOR:VARIABLE
	0222001	PV-222 20KB	VR503	9RVY-0135001	PV-130 20KB
	ESRY	SWITCH:ROTARY			SWITCH:ROTARY
	0182001	SP-187 SPN1074N	S509	9SRV-0235001	SR-235 USW-0273
	BSRY	SWITCH:ROTARY			SWITCH:ROTARY
	0205001	SR-205 SRN1043N	S502	9SRV-0237001	SR-233 USW-0271
	BWVY	FLAT CABLE			FLAT CABLE
	0235002	WF-023 6S-50-3.5	FC001	9WVY-00610509	WF-061 3-50-3

***** END *****

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